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The Bulletin of the University of Minnesota

*The School for Dental Nurses
Announcement for the Year
1922-1923*



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UNIVERSITY OF ILLINOIS

Vol. XXV No. 18 May 27 1922

Entered at the post-office in Minneapolis as second-class matter
Minneapolis, Minnesota

Accepted for mailing at special rate of postage provided for in section 1103,
Act of October 3, 1917, authorized July 12, 1918

1922							1923						
JULY							JANUARY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
..	1	..	1	2	3	4	5	6
2	3	4	5	6	7	8	7	8	9	10	11	12	13
9	10	11	12	13	14	15	14	15	16	17	18	19	20
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30	31
AUGUST							FEBRUARY						
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SEPTEMBER							MARCH						
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24	25	26	27	28	29	30	25	26	27	28	29	30	31
OCTOBER							APRIL						
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15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31	29	30
NOVEMBER							MAY						
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19	20	21	22	23	24	25	20	21	22	23	24	25	26
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DECEMBER							JUNE						
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24	25	26	27	28	29	30	24	25	26	27	28	29	30
31
NOVEMBER							DECEMBER						
..	1	1	2
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24	25	26	27	28	29	30	23	24	25	26	27	28	29
31	30	31

UNIVERSITY CALENDAR

1922-23

1922			
September	16	Saturday	Payment of fees closes, except for new students
September	19-26		Examinations for removal of conditions and entrance examinations
			Physical examinations for all new students
September	19-23		Registration period, colleges of Science, Literature, and the Arts, and Agriculture, Forestry, and Home Economics
September	25-26		Registration days for all colleges not indicated above
September	26	Tuesday	Payment of fees for new students closes
September	27	Wednesday	Fall quarter begins, 8:30* a.m.
October	14	Saturday	Class Scrap Day; classes dismissed the third and fourth hours
October	26	Thursday	Senate meeting, 4:30 p.m.
November	4	Saturday	Home Coming Day; classes dismissed the third and fourth hours
November	7	Tuesday	General Election Day; a holiday
November	11	Saturday	Armistice Day; a holiday
November	30	Thursday	Thanksgiving Day; a holiday
December	14	Thursday	Senate meeting, 4:30 p.m.
December	20	Wednesday	Fall quarter ends, Christmas vacation begins, 5:20 p.m.
1923			
January	4	Thursday	Christmas vacation ends, winter quarter begins, 8:30* a.m.
February	12	Monday	Lincoln's Birthday; a holiday
February	15	Thursday	Senate meeting, 4:30 p.m.
February	22	Thursday	Washington's Birthday; a holiday
March	23	Friday	Winter quarter ends, spring vacation begins, 5:20 p.m.
April	4	Wednesday	Spring vacation ends, spring quarter begins, 8:30* a.m.
May	17	Thursday	Senate meeting, 4:30 p.m.
May	30	Wednesday	Memorial Day; a holiday
June	17	Sunday	Baccalaureate service
June	20	Wednesday	Fifty-first annual commencement
Juné	20	Wednesday	Spring quarter closes, 5:20 p.m.
June	23-25		Registration days for Summer Session
June	26	Tuesday	Summer Session and summer quarter begin
July	4	Wednesday	Independence Day; a holiday
August	3	Friday	Summer Session closes
September	7	Friday	Summer quarter closes

* First hour classes begin at 8:15 at University Farm.

AN ACT TO PROVIDE FOR THE LICENSING OF DENTAL NURSES AND PROVIDING THE DUTIES AND RIGHTS OF DENTAL NURSES.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. *Who may become dental nurse.*—Any woman of good moral character, having a high school education and being 20 years of age or over, who is a graduate of a training school for dental nurses requiring a course of not less than two academic years, and approved by the board of dental examiners, or who is a graduate of a training school for nurses and has received at least three (3) months' clinical training in dental hygiene in any approved training school for dental nurses, may upon payment of ten (\$10.00) dollars be examined by said board on the subjects considered essential by it for a dental nurse. Such examinations may, in the discretion of the board, be conducted by a part of the members of the board. If the applicant in the opinion of the board, successfully passes said examination, she shall be registered and licensed as a dental nurse. Any woman of good moral character and 20 years of age or more, who before June 1, 1919, shall register her name with the state board of dental examiners, may upon showing three (3) years' actual experience in the office of a licensed dentist, and upon complying with such requirements and passing such examination as the board of dental examiners shall require, be licensed as a dental nurse.

Sec. 2. *Employment of and practice by dental nurses.*—Any licensed dentist, public institution or school authorities may employ such licensed dental nurse. Such dental nurse may remove lime deposits, accretions and stains from the exposed surface of the teeth, and administer gas and ether anesthesia, as applied to dentistry, but shall not perform any other operation on the teeth or tissues of the mouth. She may operate in the office of any licensed dentist or in any public institution, or in the schools, under the general direction or supervision of a licensed dentist. The board of dental examiners may suspend or revoke, with power to reinstate, the license of any licensed dentist who shall permit any dental nurse operating under his supervision, to perform any operation other than that permitted under the provisions of this section, and it may also suspend or revoke, with power of reinstatement, the license of any dental nurse violating the provisions of this act, the procedure to be followed in the case of such suspension, revocation, or reinstatement, shall be the same as that prescribed by law in the case of suspension, revocation or reinstatement of a licensed dentist.

Sec. 3. *Payments to be made to Board of Dental Examiners.*—Before the first of May in each year, every licensed dental nurse shall pay to the board of dental examiners a license fee of one (\$1.00) dollar and in default of such payment, the board may upon hearing and upon twenty (20) days' notice revoke the license of the nurse in default; but the payment of such fee on or before the time of hearing, with such additional sum not exceeding five (\$5.00) dollars, as may be fixed by the board, shall excuse any default. The board may collect such fee by suit.

Sec. 4. *Licensing of dental nurses authorized by another state.*—Any female dental nurse or dental hygienist duly licensed to practice as such in another state having and maintaining an equal standard of laws regulating the practice of dental nurses with this state, and who is of good moral character and is desirous of removing to this state, and deposits in person with the board of dental examiners a certificate from the examining board of the state in which she is licensed, certifying to the fact of her being licensed and that she is of good moral character and professional attainments, may upon the payment of a fee of twenty (\$20.00) dollars, at the discretion of the board, be granted a license to practice in this state without further examination. As to any person so applying and who has been licensed in a state not maintaining an equal standard of laws within this state, the board may license such person upon the payment of the fee above provided for, furnishing the same evidence as to licensing, good moral character, and professional attainments, and passing such further examination as the board of dental examiners shall deem necessary.

Sec. 5. This act shall take effect from and after its passage.

Approved April 15, 1919.

SCHOOL FOR DENTAL NURSES FACULTY

LOTUS DELTA COFFMAN, Ph.D., President
WILLIAM WATTS FOLWELL, LL.D., President Emeritus
¹CYRUS NORTHIROP, President Emeritus
ALFRED OWRE, D.M.D., M.D., C.M., B.A., Dean of the College of Dentistry,
Professor of the Practice of Dentistry, Chairman of the Department
of Dentistry.
HAROLD J. LEONARD, B.A., D.D.S., Associate Professor of Oral Hygiene and
Periodontia, and Chairman of the Division of Periodontia and Oral
Hygiene, and Superintendent for Dental Nurses.
RICHARD O. BEARD, M.D., Associate Professor of Physiology
ALICE M. CHILD, M.A., Assistant Professor of Home Economics
GEORGE M. DAMON, D.D.S., Professor of Prosthetic Dentistry and Oral
Anatomy and Chairman of the Division of Oral Anatomy
CHARLES C. GAULT, M.A., M.B., Assistant Professor of Physiology
CHARLES A. GRIFFITH, D.D.S., Professor of Oral Surgery
LEE A. HARKER, D.D.S., Assistant Professor of Oral Anatomy
ARTHUR D. HIRSCHFELDER, B.S., M.D., Professor of Pharmacology
HOUGHTON HOLLIDAY, B.A., D.D.S., Assistant Professor of Oral Diagnosis
and Oral Surgery
CLARENCE M. JACKSON, M.S., M.D., Professor of Anatomy
MAY S. KISSOCK, B.A., Assistant Professor of Physical Education for
Women
JESSIE S. LADD, Dean of Women
WINFORD P. LARSON, M.D., Professor of Bacteriology and Immunology
WILLIAM F. LASBY, B.A., D.D.S., Professor of Prosthetic Dentistry and
Orthodontia and Chairman of the Division of Prosthetic Dentistry
ELIAS P. LYON, Ph.D., M.D., Professor of Physiology
EVERETT E. MACGIBBON, D.D.S., Assistant Professor of Oral Surgery
HERMAN A. MAVES, D.D.S., Professor of Oral Surgery
J. ANNA NORRIS, M.D., Professor of Physical Education for Women
LOUISE M. POWELL, R.N., Director of the School of Nursing
FRANK M. RARIG, M.A., Associate Professor of Public Speaking
CHARLES E. RUDOLPH, D.D.S., Associate Professor of Prosthetic Dentistry
and Oral Anatomy, Superintendent of the Course for Dental Mechanics
JOSEPH F. SHELLMAN, D.D.S., Associate Professor of Operative Dentistry
M. CANNON SNEED, Ph.D., Associate Professor of Chemistry
JOSEPH M. THOMAS, Ph.D., Professor of Rhetoric
ALICE J. H. TOLG, M.D., Assistant Professor of Physical Education for
Women
MARION L. VANNIER, R.N., Assistant Professor of Nursing
JAMES M. WALLS, D.M.D., Professor of Operative Dentistry and Chairman
of the Division of Operative Dentistry
S. MARX WHITE, B.S., M.D., Professor of Medicine

¹ Died April 3, 1922.

CHARLES A. WIETHOFF, D.D.S., Professor of Oral Surgery and Chairman of the Division of Oral Surgery

FREDERICK J. WULLING, Phm.G., Phm.D., LL.M., Professor of Pharmacology

DANIEL E. ZISKIN, D.D.S., Assistant Professor of Oral Surgery

ARTHUR ZIEROLD, D.D.S., M.D., M.A., Associate Professor of Oral Surgery

ANNE BENTON, M.A., Instructor in Bacteriology

HERVEY H. BARBER, B.A., Instructor in Chemistry

HENRIETTA BROWNING, B.A., Instructor in Physical Education for Women

HALLY J. FISHER, R.N., Instructor in Home Nursing

RAYMOND H. LUNDQUIST, D.D.S., Instructor in Crown and Bridge Work

EARLE W. NELSON, D.D.S., Instructor in Oral Surgery

ALLEN NEWMAN, M.Sc., D.D.S., Instructor in Orthodontia and Superintendent of the Infirmary

CARL A. OMAN, D.D.S., Instructor in Oral Surgery

ELIZABETH V. PEHOUSEK, Instructor in Office Practice and Librarian of the College of Dentistry

HENRY N. REINKING, D.D.S.; Instructor in Oral Surgery

GRACE M. ROCKWOOD, B.A., Instructor in Physical Education for Women

DAVID O. SPRIESTERSBACH, M.S., Instructor in Bacteriology

CORA L. UELAND, M.A., Instructor in Oral Hygiene and Periodontia

INGVALD VEBLEN, D.D.S., Instructor in Periodontia

F. DENTON WHITE, D.D.S., Instructor in Oral Hygiene and Periodontia

AMADEUS F. WOLTER, D.D.S., Instructor in Prosthetic Dentistry

RUTH HERRICK, B.S., Teaching Fellow in Anatomy

HERMAN JENSEN, B.A., B.S., Teaching Fellow in Pharmacology

CHARLES E. SHEPARD, B.S., Teaching Fellow in Physiology

AMBERT B. HALL, Assistant in Dental Anatomy

HAROLD G. HECKLER, Assistant in Prosthetic Dentistry

GENERAL INFORMATION

PURPOSE

The School for Dental Nurses has been established primarily to fill the need for workers in the public schools, hospitals, mercantile and industrial institutions and dental offices to do dental prophylaxis work and to teach the hygiene of the mouth—in other words to do the preventive dental work which has not been possible in the organization of dentistry up to the present and which is recognized to be one of the great physical needs of the times. As thoro a background of scientific and cultural subjects as is possible in the time of the course is included to give the students that professional education and point of view without which they would be mere technicians and quite unsafe to turn loose on the public in the semi-independent capacity which the nature of their work will demand. The course includes training in all branches of dental office assisting and should make graduates easily adaptable to the general and special needs of the private dental offices should that be the field of work selected.

The course requires two years of thirty-three weeks each and leads to the degree of graduate dental nurse (G.D.N.). The incorporation of this work in the University makes it possible to give all the subjects of the curriculum in the appropriate departments of the University, thus assuring a university contact to the student and instruction under the best auspices.

TIME AND PLACE

The course of study in the School for Dental Nurses for the school year 1922-23 will begin September 27, 1922. Registration days are the two days preceding. The first quarter is almost entirely devoted to medical sciences and is done at the University Hospital, Millard Hall, and the Anatomy Building after which the work will be done almost entirely in the Dentistry Building. The fall quarter is the only time at which beginning students will be admitted. Rules for the guidance of students are printed in a separate booklet.

REGISTRATION

Applicants for admission may obtain credential blanks from the office of the registrar or from the superintendent of the school, Dr. Harold J. Leonard, College of Dentistry, University of Minnesota. These should be filled out and sent by the principal or superintendent of the high school or preparatory school to the registrar's office. Upon receipt of the credentials at the University, the registrar will notify the applicant with regard to her admission and will send directions for registration. For further information in regard to registration and to the general requirements for admission to the University, application may be made for the bulletin of general information.

REQUIREMENTS FOR ADMISSION

The School for Dental Nurses requires for admission graduation from an approved high school or other preparatory school on the accredited list.

Preference, however, will be given to women of superior preliminary training. Applicants must be not less than eighteen nor more than thirty-five years of age. They must be able to pass a satisfactory general physical examination by the school physician. The beginning class is limited to twenty-five students.

FEES

Tuition fee (per quarter).....	\$25.00
Deposit (first quarter only).....	5.00
Health fee (per quarter).....	2.00
Shevin Hall (per quarter).....	1.00
Post-office box (per quarter).....	.20
Special fees:	
Examination for removal of conditions.....	1.00
Examinations for credit (after first six weeks in residence).....	5.00
Special examinations	5.00
Chemistry deposit	5.00

PENALTY FEES:

Registration penalties.—A penalty fee for late registration, late change of registration, or late payment of fees shall be two dollars (\$2) and one dollar (\$1) additional for each day of delay after classes begin, provided that no student shall pay more than twelve dollars (\$12) of penalty in any given quarter.

ADVANCED STANDING

Graduates of approved training schools for nurses will be admitted for advanced standing in the School for Dental Nurses, and should be able to complete the remainder of the work required for the degree of graduate dental nurse in one college year. Graduate nurses will be given permission to enter the school for one quarter's work to qualify them according to the law to take the state board examination for a license to practice dental nursing. Such students will not be candidates for the degree of graduate dental nurse and will be given university credit only insofar as it would apply if sufficient work to qualify for the degree were taken later.

INSTRUMENTS

The University will furnish the larger pieces of equipment needed for the work in the clinic and laboratories but the students must furnish their own aprons, operating instruments, and tools. The list of laboratory tools will be needed at the beginning of the freshman year. It will cost approximately fifty dollars. The instruments for the clinic will be needed in the third quarter of the freshman year. This list will cost approximately twenty dollars. Some few textbooks also will be required.

COURSE OF STUDY

FRESHMAN YEAR

Number	Subject	Department	Fall Quarter		Winter Quarter		Spring Quarter		Total Hours	Total Credits	Prerequisites	Teacher
			Hours*	Credits†	Hours	Credits	Hours	Credits				
2f,w,s,su	Elementary Anatomy	Anatomy	33	2½					33	2½	None	Miss Herrick
51f,w,s,su	Elementary Chemistry	Chemistry	33	1½					33	1½	None	Mr. Barber
51f,w	Elementary Metrology	Pharmacy	11	1					11	1	None	Mr. Walling
11f,w,su	Nursing Ethics	Nursing	11	1					11	1	None	Miss Vanier
1f,w,s,ssu	General Bacteriology	Bacteriology	66	4					66	4	None	Mr. Spriestersbach
1f,3s	Physical Training	Physical Ed. for Women	33	1					33	1	None	Miss Kissock
68f	Hospital Dental Nursing	Dentistry	44	1½					44	1½	None	Dr. Ziskin
4f,w,s,ssu	Elementary Physiology	Physiology			88	5			88	5	Chem. anat.	Mr. Shepard
1f,w,s,ssu	Elementary Pharmacology	Pharmacology			44	3			44	3	Metrol.	Dr. Jensen
91w,s	Office Practice	Dentistry	66	4			33	2	99	6	None	Miss Pethousek
4f,w,s	Composition for Technical Students											
25s	Food and Nutrition	Home Economics			33	3			33	3	None	Mr. Thomas
371s	Health Care of the Family	Home Economics			55	3			55	3	Chem.	Miss Child
66s	Prophylaxis	Dentistry			55	3			55	3	Chem. and tact.	Miss Fisher
2f,w-s†	Oral Anatomy	Dentistry	44	2			33	1	33	1	None	Miss Ueland
37f,w-s†	Prosthetics	Dentistry	44	1½			44	2	132	6	None	Dr. Harter
			44	1½			44	1½	132	4½	None	Dr. Wolter
		Total	319	16			236	15½	297	15½	902	47

SENIOR YEAR									
Number	Subject	Department	Fall Quarter Hours*	Credits‡	Winter Quarter Hours	Credits	Spring Quarter Hours	Credits	Total Hours Credits
6.1f,w 35f-w†	Oral Hygiene	Dentistry	22	2					22
5f,w,s 6w,s	Principles of Dentistry	Dentistry	11	½	11	½			22
Composition for Technical Students	Composition for Technical Students	English	33	3	33	3			66
6.3w	Oral Pathology	Dentistry			22	2			22
4.5f,w,s 36s	Public Speaking	English					33	3	33
Clinical Medicine	Clinical Medicine	Medicine					22	1	22
82s	Theory and Practice	Dentistry					11	1	11
67f-w-s† 73f-w-s†	Prophylaxis	Dentistry	132	4	132	4	132	4	396
Anesthetics and Operat- ing Room Technique	Anesthetics and Operat- ing Room Technique	Dentistry	77	2½	66	2	66	2	209
Dental Assisting and Laboratory	Dental Assisting and Laboratory	Dentistry	99	3	99	3	99	3	297
23w-s†	Dental Roentgenology	Dentistry			33	1½	33	1½	66
		Total	374	15	396	16	396	15½	1166
									46½

* Hours mean actual hour periods spent in class.

† Subjects marked with a dagger (†) and in which the quarter figures are connected by a hyphen (-) are continuation subjects and do not receive a grade until they are completed.

‡ A credit means approximately three hours a week for a quarter. This may be three hours of laboratory or clinic work without time spent in outside preparation, or one hour spent in recitation requiring approximately two hours of outside preparation.

DEPARTMENTAL STATEMENTS

. ANATOMY

Professor CLARENCE M. JACKSON; Teaching Fellow RUTH HERRICK.

2f,w,s,su. ELEMENTARY ANATOMY. A general survey of human gross anatomy. The description and demonstration of the osseous, muscular, nervous, circulatory, respiratory, excretory, and reproduction systems. 3 hours a week for one quarter. DR. JACKSON, MISS HERRICK.

BACTERIOLOGY AND IMMUNOLOGY

Professor WINFORD P. LARSON; Instructor ANNE G. BENTON, DAVID O. SPRIESTERSBACH.

1f,w,s,su. GENERAL BACTERIOLOGY. The principles and technique of general bacteriology. Studies in the morphologic and biologic characters of the common bacteria. Preparation of culture media. Disinfectants and disinfection. Bacteriology of water and food products. 8 hours a week for one quarter. MISS BENTON, MR. SPRIESTERSBACH.

CHEMISTRY

Associate Professor M. CANNON SNEED; Instructor HERVEY H. BARBER.

51f,w,s,su. ELEMENTARY CHEMISTRY. A brief study of matter and energy; of chemical and physical changes; the fundamental laws of chemistry; chemical elements and compounds; the qualitative and quantitative composition of foods, air, and water. 3 hours a week for one quarter. MR. BARBER.

DENTISTRY

ORAL ANATOMY

Professor GEORGE M. DAMON; Assistant Professor LEE A. HARKER; Assistant AMBERT B. HALL.

2f,w,s†. A course of lectures and recitations on the anatomy and nomenclature of the teeth and such laboratory work as drawing, dissection, modeling, and carving of the teeth. Special attention is given to the physiological function of tooth form and its practical application. 4 hours per week for three quarters. DR. DAMON, DR. HARKER, MR. HALL.

ORAL DIAGNOSIS

Assistant Professor HOUGHTON HOLLIDAY.

23w-s†. DENTAL ROENTGENOLOGY. Lectures, demonstrations, readings, and quizzes in the elements of dental roentgenology. Training in the operation of X-ray equipment and in producing and reading X-ray films. 1 lecture hour; 2 practice hours a week for two quarters. DR. HOLLIDAY.

OPERATIVE DENTISTRY

Professor JAMES WALLS; Associate Professor JOSEPH F. SHELLMAN; Instructor RAYMOND H. LUNDQUIST.

34f-w-s†. DENTAL ASSISTING AND LABORATORY. A course in the technique of assisting the dentist at the chair and in the laboratory. 9 hours a week for three quarters. DR. SHELLMAN, DR. LUNDQUIST.

35f-w†. PRINCIPLES OF DENTISTRY. A course of lectures covering the principles underlying operative dentistry, crown and bridge, prosthetics, and orthodontia. 1 hour a week for two quarters. DR. WALLS, DR. SHELLMAN and associates.

PERIODONTIA AND ORAL HYGIENE

Associate Professor HAROLD J. LEONARD; Assistant Professor DANIEL E. ZISKIN; Instructors CORA L. UELAND, INGVOLD VEBLEN, F. DENTON WHITE.

61f,w. ORAL HYGIENE. Lectures and recitations on general and oral hygiene including such general and special material as a prospective health officer as well as dentist or dental nurse should have. Emphasizes prevention of disease and positive health. 2 hours a week for one quarter. DR. LEONARD.

63w. ORAL PATHOLOGY. Lectures and recitations on the special pathology of the teeth and other oral tissues. Specially adapted for dental nurses. 2 hours a week for one quarter. DR. LEONARD, DR. VEBLEN.

66s. PROPHYLAXIS. Drill in the technique of cleansing and polishing teeth, using manikins. 3 hours a week for one quarter. MISS UELAND.

67f-w-s†. PROPHYLAXIS. Practice in the dental infirmary and in the public school clinics in the cleansing and polishing of teeth and in instructing patients in measures of oral hygiene. 12 hours a week for three quarters. MISS UELAND, DR. WHITE.

68f. HOSPITAL DENTAL NURSING. A course in chart-reading and hospital routine. 4 hours a week for one quarter. DR. ZISKIN.

PROSTHETIC DENTISTRY

Professors WILLIAM F. LASBY, GEORGE M. DAMON; Associate Professor CHARLES E. RUDOLPH; Instructor AMADEUS F. WOLTER; Assistant HAROLD G. HECKLER.

57f-w-s†. PROSTHETIC TECHNIQUE. A course of lectures, recitations, and laboratory technique covering equipment and arrangement of the dental laboratory, impression materials, study models, vulcanite dentures. 4 hours per week for three quarters. DR. DAMON, DR. RUDOLPH, DR. WOLTER, MR. HECKLER.

ORAL SURGERY

Professors CHARLES A. GRIFFITH, HERMAN A. MAVES, CHARLES A. WIETHOFF; Associate Professors EVERETT E. MACGIBBON, ARTHUR A. ZIEROLD; Assistant Professors HOUGHTON HOLLIDAY; Instructors EARLE W. NELSON, CARL R. OMAN, HENRY N. REINKING.

73f-w-s†. ANESTHETICS AND OPERATING ROOM TECHNIQUE. Lectures and practice in administering anesthetics and assisting in dental operations. 1 hour a week lectures for one quarter and 6 hours a week practice throughout the year. DR. GRIFFITH, DR. MAVES, DR. WIETHOFF, DR. MACGIBBON, DR. HOLLIDAY, DR. NELSON, DR. OMAN, DR. REINKING.

THESIS AND SEMINAR

Professor ALFRED OWRE.

82s. THEORY AND PRACTICE. A course in the theory and practice of dentistry. 1 hour a week for one quarter. DR. OWRE.

OFFICE PRACTICE

Instructor ELIZABETH V. PEHOUSEK.

91w-s†. OFFICE PRACTICE. Study and practice in typewriting, letter-writing, filing, elementary bookkeeping, care of office, handling patients, office ethics, etc. 6 hours a week for one quarter and 3 hours a week for the following quarter. Miss PEHOUSEK.

ENGLISH

Professor JOSEPH M. THOMAS; Associate Professor FRANK M. RARIG.

4f,w,s-5f,w,s-6w,s. RHETORIC. A beginning course in the study of the fundamental principles of composition; training in the art of writing; the principles of structure, and analysis of specimens of good prose.

45f,w,s. PUBLIC SPEAKING. Fundamentals of effective speaking; breathing, voice production, enunciation, and action; delivery of extracts from the works of well-known writers and speakers; principles underlying speech-making applied in both oral and written compositions.

HOME ECONOMICS

Instructors ALICE M. CHILD, HALLY J. FISHER.

37f,s. HEALTH CARE OF THE FAMILY. Lectures, demonstrations, and practice in practical home nursing. The same course as given to the students in Home Economics. 5 hours a week for one quarter. Miss FISHER.

25s. FOOD AND NUTRITION. Chemical composition and physiological significance of foodstuffs. Principles of cookery underlying the preparation of foods: planning and preparation of normal and special diets. 5 hours a week for one quarter. Miss CHILD.

MEDICINE

Professor S. MARX WHITE.

36s. CLINICAL MEDICINE. Lectures and recitations dealing with the subject of systemic disease with special emphasis on the relationship or non-relationship between the systemic diseases and focal infection or irritation in the mouth and elsewhere. Offered to senior dental students, graduates, and dental nurses. 2 hours a week for one quarter. Arranged by DR. WHITE.

NURSING

Director LOUISE M. POWELL; Instructor MARION L. VANNIER.

11f,w,s,su. NURSING ETHICS. 2 hours a week for six weeks. MISS POWELL, MISS VANNIER.

PHARMACY

Professor FREDERICK J. WULLING.

51f,w. METROLOGY. A study of weights and measures, balances, specific gravity, etc. 2 hours a week for six weeks. MR. WULLING.

PHARMACOLOGY

Professor ARTHUR D. HIRSCHFELDER; Teaching Fellow HERMAN JENSEN.

4f,w,s,su. ELEMENTARY PHARMACOLOGY. A study of the history, uses, classifications and preparation of drugs; definition of descriptive terms; systems of weights and measures; methods of administration, principles of dosage, etc. 4 hours a week for one quarter. MR. JENSEN.

PHYSICAL EDUCATION FOR WOMEN

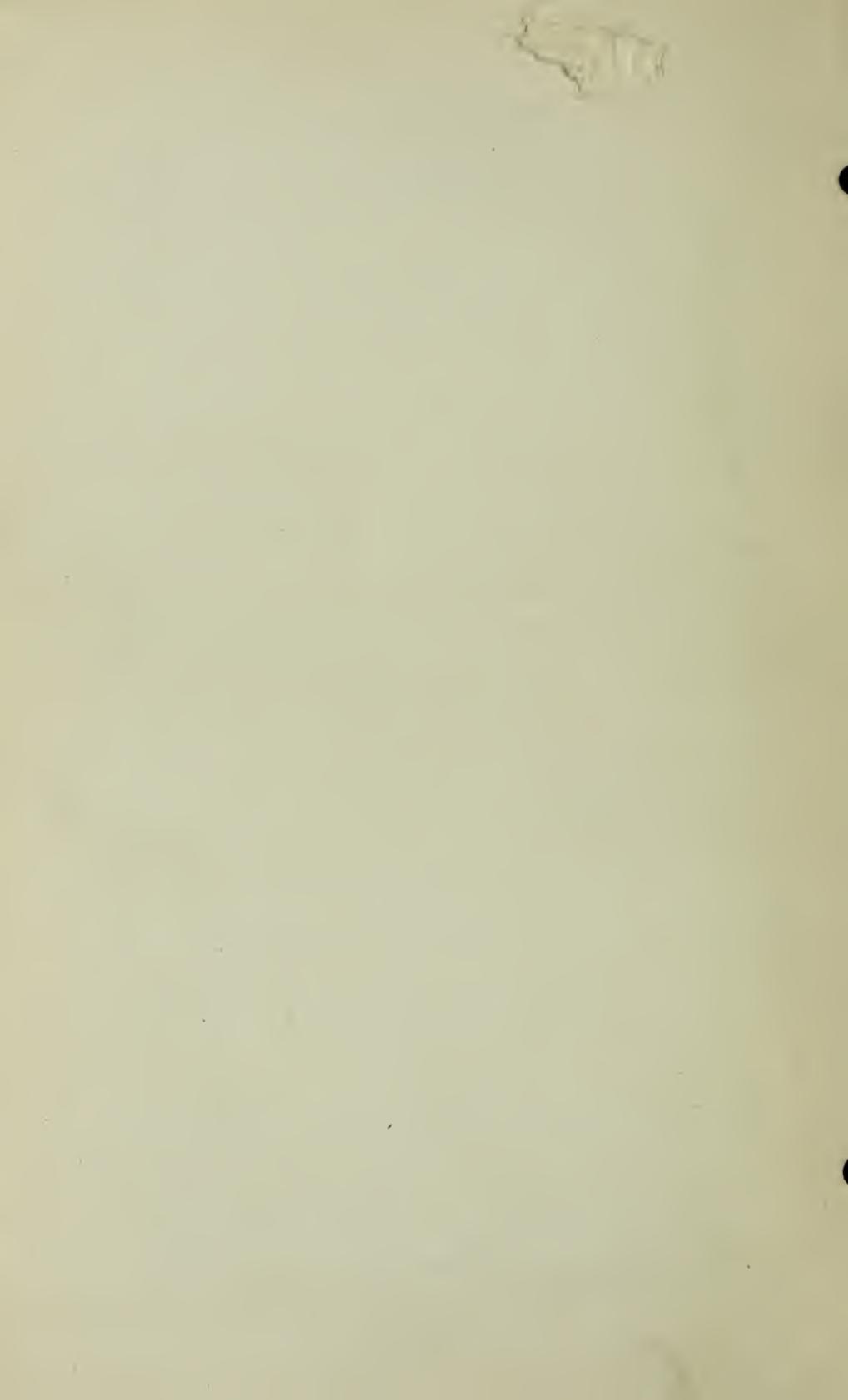
Professor J. ANNA NORRIS; Assistant Professors MAY S. KISSOCK, ALICE J. H. TOLG; Instructors GERTRUDE M. BAKER, HENRIETTA BROWNING, GRACE M. ROCKWOOD.

1f,3s. A course of physical exercises for the personal development of the student, especially directed to the training of the nurse in the adaptation of her movements to the best results in her practical work. 3 hours a week.

PHYSIOLOGY

Professor ELIAS P. LYON; Associate Professor RICHARD O. BEARD; Assistant Professor CHARLES C. GAULT; Teaching Fellow CHARLES E. SHEPARD.

4f,w,s,su. ELEMENTARY PHYSIOLOGY. The functional properties of tissue-cells; the material bases of the body; the nutritive media; the physiology of nerve and muscle; of the nervous system; the vascular mechanism; respiration, digestion, excretion, and metabolism. 8 hours a week for one quarter. DR. BEARD, DR. GAULT, MR. SHEPARD.



McGuire
1922-23

The Bulletin of the University of Minnesota

*The College of Dentistry
Announcement for the Year
1922-1923*



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OCT 4 1923

Vol. XXV No. 10 April 4 1922

Entered at the post-office in Minneapolis as second-class matter
Minneapolis, Minnesota

Accepted for mailing at special rate of postage provided for in section 1103,
Act of October 3, 1917, authorized July 12, 1918

1922							1923						
JULY							JANUARY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
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UNIVERSITY CALENDAR

1922-23

1922			
September	16	Saturday	Payment of fees closes, except for new students
September	19-26		Examinations for removal of conditions and entrance examinations
			Physical examinations for all new students
September	19-23		Registration period, colleges of Science, Literature, and the Arts, and Agriculture, Forestry, and Home Economics
September	25-26		Registration days for all colleges not indicated above
September	26	Tuesday	Payment of fees for new students closes
September	27	Wednesday	Fall quarter begins, 8:30* a.m.
October	14	Saturday	Class Scrap Day; classes dismissed the third and fourth hours
October	26	Thursday	Senate meeting, 4:30 p.m.
November	4	Saturday	Home Coming Day; classes dismissed the third and fourth hours
November	7	Tuesday	General Election Day; a holiday
November	11	Saturday	Armistice Day; a holiday
November	30	Thursday	Thanksgiving Day; a holiday
December	14	Thursday	Senate meeting, 4:30 p.m.
December	20	Wednesday	Fall quarter ends, Christmas vacation begins, 5:20 p.m.
1923			
January	4	Thursday	Christmas vacation ends, winter quarter begins, 8:30* a.m.
February	12	Monday	Lincoln's Birthday; a holiday
February	15	Thursday	Senate meeting, 4:30 p.m.
February	22	Thursday	Washington's Birthday; a holiday
March	23	Friday	Winter quarter ends, spring vacation begins, 5:20 p.m.
April	4	Wednesday	Spring vacation ends, spring quarter begins, 8:30* a.m.
May	17	Thursday	Senate meeting, 4:30 p.m.
May	30	Wednesday	Memorial Day; a holiday
June	17	Sunday	Baccalaureate service
June	20	Wednesday	Fifty-first annual commencement
June	20	Wednesday	Spring quarter closes, 5:20 p.m.
June	23-25		Registration days for Summer Session
June	26	Tuesday	Summer Session and summer quarter begin
July	4	Wednesday	Independence Day; a holiday
August	3	Friday	Summer Session closes
September	7	Friday	Summer quarter closes

* First hour classes begin at 8:15 at University Farm.

THE COLLEGE OF DENTISTRY

FACULTY

LOTUS DELTA COFFMAN, Ph.D., President

WILLIAM WATTS FOLWELL, LL.D., President Emeritus

¹CYRUS NORTHRUP, LL.D., President Emeritus

ALFRED OWRE, D.M.D., M.D., C.M., B.A., Dean of College of Dentistry,
Professor of the Practice of Dentistry, and Chairman of the Department
of Dentistry

BERT G. ANDERSON, D.D.S., Assistant Professor of Oral Surgery and
Chairman of the Division of Oral Diagnosis

RICHARD O. BEARD, M.D., Associate Professor of Physiology

ELEXIOUS T. BELL, B.S., M.D., Professor of Pathology

PETER J. BREKHUS, B.A., D.D.S., Associate Professor of Crown and Bridge
Work

PAUL H. M.-P. BRINTON, Ph.D., Professor of Analytical Chemistry

EDGAR D. BROWN, Phm.D., M.D., Associate Professor of Pharmacology

ARCHIBALD B. BUTTER, D.D.S., Assistant Professor of Operative Dentistry

BENJAMIN J. CLAWSON, B.S., M.D., Ph.D., Assistant Professor of Pa-
thology

OSCAR COOPERMAN, D.D.S., Assistant Professor of Prosthetic Dentistry
and Oral Anatomy

NORMAN J. COX, B.S., D.M.D., Associate Professor of Operative Dentistry

GEORGE M. DAMON, D.D.S., Professor of Prosthetic Dentistry and Oral
Anatomy and Chairman of the Division of Oral Anatomy

RUDOLPH W. DELTON, D.D.S., Assistant Professor of Prosthetic Dentistry
and Orthodontia

MAX E. ERNST, LL.B., D.D.S., Professor of Orthodontia

CARL O. FLAGSTAD, D.D.S., Associate Professor of Prosthetic Dentistry
and Orthodontia

CHARLES C. GAULT, M.A., M.B., Assistant Professor of Physiology

HENRY S. GODFREY, D.M.D., Professor of Operative Dentistry

ROBERT O. GREEN, D.D.S., Professor of Operative Dentistry

WILLIAM A. GREY, D.D.S., Assistant Professor of Oral Surgery and Chair-
man of the Group in Hospital Dentistry

CHARLES A. GRIFFITH, D.D.S., Professor of Oral Surgery

OSCAR F. HARDER, Ph.D., Associate Professor of Metallography

LEE A. HARKER, D.D.S., Assistant Professor of Oral Anatomy

ARTHUR T. HENRICI, M.D., Associate Professor of Bacteriology

RAYMOND R. HENRY, D.D.S., Assistant Professor of Operative Dentistry

CLARENCE HERMANN, D.D.S., Assistant Professor of Oral Surgery

ARTHUR D. HIRSCHFELDER, B.S., M.D., Professor of Pharmacology

HOUGHTON HOLLIDAY, B.A., D.D.S., Assistant Professor of Oral Surgery
and Oral Diagnosis

WILLIAM H. HUNTER, Ph.D., Professor of Chemistry

¹ Died April 3, 1922.

CLARENCE M. JACKSON, M.S., M.D., Professor of Anatomy
FRANCIS B. KINGSBURY, Ph.D., Associate Professor of Physiologic Chemistry
RAY R. KNIGHT, B.A., M.D., Associate Professor of Roentgenology and Physical Diagnosis
WINFORD P. LARSON, M.D., Professor of Bacteriology and Immunology
WILLIAM F. LASBY, B.A., D.D.S., Professor of Prosthetic Dentistry and Orthodontia and Chairman of the Division of Prosthetic Dentistry
HARRY C. LAWTON, D.D.S., Associate Professor of Prosthetic Dentistry and Orthodontia
THOMAS G. LEE, B.S., M.D., Professor of Comparative Anatomy
HAROLD J. LEONARD, D.D.S., B.A., Associate Professor of Oral Hygiene and Pathology. Superintendent of the School for Dental Hygienists, and Chairman of the Division of Periodontia and Oral Hygiene
JOSEPH M. LITTLE, D.D.S., Associate Professor of Operative Dentistry
ELIAS P. LYON, Ph.D., M.D., Professor of Physiology
JAMES S. McCARTNEY, Jr., B.A., M.D., Assistant Professor of Pathology
JESSE F. McCLENDON, Ph.D., Professor of Physiology
EVERETT E. MACGIBBON, D.D.S., Associate Professor of Oral Surgery
HERMAN A. MAVES, D.D.S., Professor of Oral Surgery
RICHARD S. MAYBURY, D.D.S., Associate Professor of Operative Dentistry
WILLIAM C. NAEGLI, D.D.S., Assistant Professor of Operative Dentistry
HERBERT C. NELSON, D.D.S., Assistant Professor of Crown and Bridge Work
FORREST H. ORION, D.D.S., Professor of Crown and Bridge Work
CARL OTTO, D.D.S., Assistant Professor of Crown and Bridge Work
ALFRED A. PAGENKOPF, D.D.S., Professor of Crown and Bridge Work
PAUL S. PARKER, D.D.S., Assistant Professor of Operative Dentistry
MARK O. PATTRIDGE, D.D.S., Associate Professor of Operative Dentistry
CARL H. PETRI, D.D.S., Assistant Professor of Prosthetic Dentistry and Oral Anatomy
CHAUNCEY J. V. PETTIBONE, Ph.D., Associate Professor of Physiologic Chemistry
ANDREW T. RASMUSSEN, Ph.D., Associate Professor of Neurology
GEORGE W. REYNOLDS, D.D.S., Professor of Crown and Bridge Work
WILLIAM A. ROLL, D.D.S., Associate Professor of Crown and Bridge Work
CHARLES E. RUDOLPH, D.D.S., Associate Professor of Prosthetic Dentistry and Oral Anatomy. Superintendent of the Course for Dental Mechanics
FREDERICK H. SCOTT, M.B., Ph.D., D.Sc., Professor of Physiology
JOSEPH F. SHELLMAN, D.D.S., Associate Professor of Operative Dentistry
CHARLES F. SIDENER, B.S., Professor of Chemistry
LEE I. SMITH, Ph.D., Assistant Professor of Organic Chemistry
WILLIAM D. VEHE, D.D.S., Associate Professor of Crown and Bridge Work and Operative Dentistry
CARL W. WALDRON, M.D., D.D.S., Assistant Professor of Oral Hygiene and Periodontia

LEHMAN WENDELL, B.S., D.D.S., Assistant Professor of Orthodontia and Prosthetic Dentistry

JAMES M. WALLS, D.M.D., Professor of Operative Dentistry and Chairman of the Division of Operative Dentistry

OSCAR A. WEISS, D.M.D., Professor of Prosthetic Dentistry and Orthodontia, Chairman of the Division of Orthodontia

AMOS S. WELLS, B.A., D.D.S., Professor of Crown and Bridge Work and Chairman of the Division of Crown and Bridge Work

S. MARX WHITE, B.S., M.D., Professor of Medicine

CHARLES A. WIETHOFF, D.D.S., Professor of Oral Surgery and Chairman of the Division of Oral Surgery

FREDERICK R. WUNDERLICH, D.D.S., Professor of Military Science and Tactics

ARTHUR A. ZIEROLD, D.D.S., B.S., M.D., Associate Professor of Oral Surgery

DANIEL E. ZISKIN, D.D.S., Assistant Professor of Oral Surgery

ANNE BENTON, M.A., Instructor in Bacteriology

RALPH L. DOWDELL, Met.E., Instructor in Metallography

LEONARD V. DOWNING, D.D.S., Instructor in Prosthetic Dentistry

GEORGE D. ESTES, D.D.S., Instructor in Operative Dentistry

JAY M. FREEBURG, D.D.S., Instructor in Operative Dentistry

JOHN R. GILL, D.D.S., Instructor in Crown and Bridge Work

BERYL S. GREEN, M.A., Instructor in Bacteriology

ROBERT C. GREEN, B.A., Instructor in Bacteriology

WALTER K. HAVEN, D.D.S., Instructor in Oral Hygiene

HAROLD C. HILLMAN, D.D.S., Instructor in Oral Surgery and Periodontia

ROY M. JERNALL, D.D.S., Instructor in Prosthetic Dentistry

ARTHUR F. JOHNSON, D.D.S., Instructor in Prosthetic Dentistry

RAYMOND E. JOHNSON, D.D.S., Instructor in Oral Hygiene and Periodontia

HELEN M. KEPLER, M.A., Instructor in Anatomy

VERNON G. LAUER, D.D.S., Instructor in Oral Surgery and Periodontia

RAYMOND H. LUNDQUIST, D.D.S., Instructor in Crown and Bridge Work

LESTER C. McCARTHY, D.D.S., Instructor in Crown and Bridge Work

THEODORE W. MAVES, D.D.S., Instructor in Crown and Bridge Work

SHIRLEY P. MILLER, M.A., Instructor in Anatomy

GEORGE A. MONTELUS, D.D.S., Instructor in Oral Diagnosis

EARL A. NELSON, D.D.S., Instructor in Crown and Bridge Work

EARL W. NELSON, D.D.S., Instructor in Oral Surgery

ALLEN T. NEWMAN, M.Sc., D.D.S., Instructor in Orthodontia and Superintendent of the Infirmary

CARL A. OMAN, D.D.S., Instructor in Oral Surgery

CLAYTON M. REASONER, M.E., Instructor in Metallography

HENRY N. REINKING, D.D.S., Instructor in Oral Surgery

LANDON A. SARVER, M.A., Instructor in Chemistry

JOHN F. SPRAFKA, D.D.S., Instructor in Operative Dentistry

DAVID O. SPRIESTERSBACH, M.S., Instructor in Bacteriology

MARION R. STEVENS, B.A., D.D.S., Instructor in Operative Dentistry

FACULTY

7

CALVIN P. STONE, B.S., Ph.D., Instructor in Anatomy
CLAYTON A. SWANSON, D.D.S., Instructor in Oral Surgery
WILLIAM W. SWANSON, B.A., Instructor in Physiologic Chemistry
MERRILL G. SWENSON, D.D.S., Instructor in Prosthetic Dentistry
FRED C. THIERS, D.D.S., Instructor in Operative Dentistry
LOUIS W. THOM, D.D.S., Instructor in Operative Dentistry
CORA L. UELAND, M.A., Instructor in Oral Hygiene and Periodontia
REUBEN A. ULVESTAD, D.D.S., Instructor in Prosthetic Dentistry
INGVALD VEBLEN, D.D.S., Instructor in Periodontia
ANDREW J. WEISS, Instructor in Prosthetic Dentistry
FRED DENTON WHITE, D.D.S., Instructor in Oral Hygiene and Periodontia
AMADEUS F. WOLTER, D.D.S., Instructor in Prosthetic Dentistry

ASSISTANTS

HERBERT A. CARLSON, B.S., Assistant in Anatomy
ERNEST J. COLBERG, B.S., M.B., Teaching Fellow in Pathology
DONALD W. DE CARLE, B.S., Teaching Fellow in Pathology
MADELEINE GUILLEMIN, M.A., Teaching Fellow in Bacteriology
AMBERT B. HALL, Assistant in Dental Anatomy
HAROLD G. HECKLER, Assistant in Dental Prosthesis
HERMAN JENSEN, B.A., B.S., Teaching Fellow in Pharmacology
IGNATIUS P. MOGA, Assistant in Prosthetic Dentistry
OLIVER J. MOREHEAD, B.A., Teaching Fellow in Anatomy
CHARLES C. SHEPARD, B.A., Teaching Fellow in Physiology
JEE LUM WONG, Assistant in Oral Pathology

RODNEY M. WEST, B.A., Registrar, University of Minnesota, Secretary of
the Faculty, College of Dentistry, University of Minnesota

GENERAL INFORMATION

For statements of entrance requirements and registration, see the bulletins of general information and of extension work.

For schedule of lectures, announcements, changes in college rules, etc., see bulletin board. The rules for the guidance of students are printed in a separate booklet.

COURSES OFFERED

FIVE-YEAR COURSE

A combined course of one year in the College of Science, Literature, and the Arts, and four years' work in the College of Dentistry, leading to the degree of doctor of dental surgery.

SEVEN-YEAR COURSE

Seven-year course in Arts and Dentistry leading to the degrees of bachelor of arts and doctor of dental surgery. The first three years' work in the College of Science, Literature, and the Arts under the regular rules, secures 135 credits. The final year in the College of Dentistry counts as equivalent to the fourth year (forty-five credits). The remaining three years are taken in the College of Dentistry.

GRADUATE WORK

Graduate work and opportunities for research are open in certain fields of dentistry to properly qualified students.

The qualifications for admission to graduate work in this field are a baccalaureate degree from an acceptable college or university, and the dental degree from this or any other approved university. Such qualified students desiring graduate work will pursue courses of study in accordance with the regulations of the Graduate School. They may elect majors and minors for the graduate degree from the graduate courses in anatomy, embryology, histology, neurology, pathology, bacteriology, chemistry, physiology, and physiologic chemistry. The material for investigation along dental lines in these various subjects is available from the dental clinic, the medical dispensary, the University Hospital, and the Mayo Clinic at Rochester, Minnesota, through the Mayo Foundation for Medical Education and Research. The Mayo Foundation offers several fellowships in dentistry similar to fellowships in other specialties on the foundation.

No special bulletin is issued for this work. The interested student will find the general conditions and the courses in the above fields set forth in the bulletin on graduate work in medicine.

HYGIENISTS' COURSE

A course for dental hygienists, consisting of two years' work in Elliot Hospital and the College of Dentistry, requiring for admission graduation from an accredited high school, and leading to the degree of graduate dental hygienist.

EXTENSION WORK

In order to enlarge its educational field and to fill a want that has found expression among practitioners, the College of Dentistry offers through the General Extension Division a series of courses in crown and bridge work, prosthetics, oral surgery, porcelain work, and orthodontia. For detailed information see bulletin of extension work.

MECHANICS COURSE

A course in Dental Mechanics is offered under the auspices of the General Extension Division. This course extends over a period of one college year, requiring for admission completion of eighth grade work and a minimum age of eighteen, except in cases of students having completed one or more years of high school work. A certificate is awarded upon the satisfactory completion of the course. For detailed information see bulletin of extension work.

SUMMER SESSION

A summer session of six or eleven weeks is offered in the departments of Anatomy, Bacteriology, Chemistry, Dentistry, Pathology, and Physiology.

REQUIREMENTS FOR ADMISSION

The College of Dentistry requires for admission the completion of one year of specified collegiate work in Science, Literature, and the Arts at the University of Minnesota or other college or university of equal rank.

The required academic studies preliminary to the dental course are: animal biology, 280 hours; chemistry, general, 192 hours; chemistry, qualitative, 88 hours; English, 175 hours; technical drawing or shop practice, 210 hours. High school physics or its equivalent must be completed before entering the freshman year.

On account of the limited capacity of the College of Dentistry, not more than ninety freshmen can be admitted. Applications for admission should be in the registrar's office not later than July 15, 1922.

Candidates will be selected according to quantity and quality of preparation, and when necessary their fitness shall be determined by an examination and conference with the Committee on Entrance.

REQUIREMENTS FOR GRADUATION

A candidate for the degree of doctor of dental surgery must be twenty-one years of age, of good moral character, and, after satisfying all the requirements for admission to the college, must have complied with all the rules and regulations of the college and obtained regular credit for all subjects of the entire course.

Graduates from accredited dental colleges applying for the degree of doctor of dental surgery from the University of Minnesota must fulfill all entrance and departmental requirements and spend at least one year in residence.

FEES

Tuition fee (per quarter):

Residents of Minnesota.....	\$60.00
Non-residents	70.00
Deposit (first quarter only).....	5.00
Military deposit (required of all students taking military drill).....	10.00
Health fee.....	2.00
Minnesota Union or Shevelin Hall (per quarter).....	1.00
Post-office box (per quarter).....	.20
Special fees:	
Examination for removal of conditions.....	1.00
Examinations for credit (after six weeks in residence).....	5.00
Special examinations.....	5.00
Chemistry deposit.....	5.00

Penalty Fees

Registration penalties.—A penalty fee for late registration, late change of registration, or late payment of fees shall be two dollars (\$2) and one dollar (\$1) additional for each day of delay after classes begin, provided that no student shall pay more than twelve dollars (\$12) of penalty in any given quarter.

COURSE OF STUDY 1922-23

	Fall Quarter Credits Hours	Winter Quarter Credits Hours	Spring Quarter Credits Hours	Total Credits Hours
FRESHMAN YEAR				
Anatomy, Gross.....	5 99	5 99	5 99	15 297
Anatomy, Oral.....	3 77	3 77	3 77	9 231
Chemistry, Org.....	4 99	4 99	.. ..	8 198
Chemistry, Quant.....	.. ..	.. ..	3 88	3 88
Prosthesis	3 77	3 77	3 77	9 231
	<hr/> 15 = 352	<hr/> 15 = 352	<hr/> 14 = 341	<hr/> 44 = 1,045
SOPHOMORE YEAR				
Anatomy, Hist. & Emb. ..	.. ..	6 132	.. ..	6 132
Bacteriology	5 99	.. ..	3 44	8 143
Chemistry, Physiologic ..	.. ..	.. ..	4 66	4 66
Crown & Bridge Work 2	66	2 66	2 66	6 198
Operative Dentistry...	2 66	2 66	2 66	6 198
Orthodontia .....	.. ..	.. ..	3 99	3 99
Physiology	4 66	4 66	.. ..	8 132
Prosthesis	3 99	2 66	.. ..	5 165
	<hr/> 16 = 396	<hr/> 16 = 396	<hr/> 14 = 341	<hr/> 46 = 1,133
JUNIOR YEAR				
*Crown & Bridge Work 2	66	2 66	2 66	6 198
Diagnosis, Oral.....	.. ..	.. ..	1 11	1 11
Hygiene, Gen. & Oral. ..	.. ..	2 22	.. ..	2 22
Metallography .....	.. ..	.. ..	2 33	2 33
Operative Dentistry...	4 110	4 110	5 143	13 363
Pathology, Gen. & Sp. 8	165	.. ..	.. ..	8 165
Pathology, Oral.....	.. ..	.. ..	3 33	3 33
Periodontia .....	.. ..	1 33	.. ..	1 33
Pharmacology .....	.. ..	4 55	.. ..	4 55
Prosthesis	3 33	2 66	2 66	7 165
Surgery, Oral.....	.. ..	2 22	2 44	4 66
	<hr/> 17 = 374	<hr/> 17 = 374	<hr/> 17 = 396	<hr/> 51 = 1,144
SENIOR YEAR				
Clinical Medicine.....	.. ..	.. ..	2 22	2 22
Crown & Bridge Work 4	110	4 110	4 110	12 330
Diagnosis, Gen. & Oral 1	11	1 33	.. ..	2 44
Operative Dentistry...	5 143	5 143	5 143	15 429
Orthodontia	2 44	2 44	2 44	6 132
Periodontia	1 33	.. ..	.. ..	1 33
Prosthesis	2 66	2 66	2 66	6 198
Surgery, Oral.....	2 22	2 22	1 33	5 77
Thesis & Seminar.....	.. ..	1 11	1 11	2 22
	<hr/> 17 = 429	<hr/> 17 = 429	<hr/> 17 = 429	<hr/> 51 = 1,287

* 1922-23—Same as Sophomore Technique.

DEPARTMENTAL STATEMENTS EXPLANATIONS

A dagger (†) indicates that all quarters of the course must be completed before credit is received for any quarter.

ANATOMY

Professors CLARENCE M. JACKSON, THOMAS G. LEE; Associate Professor ANDREW T. RASMUSSEN; Instructors HELEN M. KEPLER, SHIRLEY P. MILLER, CALVIN P. STONE; Teaching Fellow OLIVER J. MOREHEAD; Assistant HERBERT A. CARLSON.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
9f-1ow	10	Systematic Anatomy.....	Fr.	An. Biol. 1-2
11s	5	Anatomy of Head and Neck	Fr.	An. Biol. 1-2, Anat. 9f- 1ow
14w	6	Histology and Embryology	Soph.	An. Biol. 1-2, Anat. 9f- 1ow-11s

9f-1ow. SYSTEMATIC ANATOMY. Lectures and recitations on the gross morphology of the various systems of the body. Laboratory work upon human and mammalian material. Special emphasis laid upon human osteology. 9 hours a week. DR. JACKSON and assistants.

11s. ANATOMY OF THE HEAD AND NECK. Dissection of the human head and neck, with lectures and recitations. 9 hours a week. MR. RASMUSSEN and assistants.

14w. HISTOLOGY AND EMBRYOLOGY. Minute structure and development of the tissues and organs of the body, with special emphasis upon the teeth and digestive tract. Lectures, recitations, and laboratory work. 12 hours a week. DR. JACKSON, DR. LEE, and assistants.

BACTERIOLOGY AND IMMUNOLOGY

Professor WINFORD P. LARSON; Associate Professor ARTHUR T. HENRICI; Instructors ANNE BENTON, DAVID O. SPRIESTERSBACH, BERYL S. GREEN, ROBERT C. GREEN; Teaching Fellow MADELEINE GUILLEMIN.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
1f	5	General Bacteriology.....	Soph.	Chemistry; biology
102s	3	Special Dental Bacteriol..	Soph.	Bact. 1f

1f,w,s,su. GENERAL BACTERIOLOGY. Preparation of culture media; morphology of bacteria; methods of staining and identification; anaerobic bacteria; principles of sterilization and disinfection; examination of air, water, milk; relations of bacteria to industries. 99 hours. 1f, special division for dental students. DR. HENRICI and assistants.

102s. SPECIAL BACTERIOLOGY. General consideration of the mouth flora; bacteriology of the stomatitis, dental caries, alveolar abscess and pyorrhea; systemic infections secondary to bacterial diseases of the mouth and teeth. 44 hours. DR. HENRICI and assistants.

CHEMISTRY

Professors PAUL H. M.-P. BRINTON, WILLIAM H. HUNTER, CHARLES F. SIDENER; Assistant Professor LEE I. SMITH; Instructor LANDON A. SARVER.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
28s	3	Quantitative Analysis.....	Fr	Chem. 11
31f-32w	8	Elem. Organic Chemistry.	Fr.	Chem. 28

28s. QUANTITATIVE ANALYSIS. A short introductory course covering the general principles and methods of quantitative analysis both gravimetric and volumetric. Typical problems will be assigned and attention given to proper laboratory practice. 88 hours. MR. BRINTON, MR. SIDENER, MR. SARVER.

31f-32w. ELEMENTARY ORGANIC CHEMISTRY. This course will include a discussion of important compounds of the aliphatic and of the aromatic series, and the preparation of typical substances. 198 hours. MR. HUNTER, MR. SMITH.

DENTISTRY

Professors ALFRED OWRE, GEORGE M. DAMON, MAX E. ERNST, HENRY S. GODFREY, ROBERT O. GREEN, CHARLES A. GRIFFITH, WILLIAM F. LASBY, HERMAN A. MAVES, FORREST H. ORTON, ALFRED A. PAGENKOPF, GEORGE W. REYNOLDS, JAMES M. WALLS, OSCAR A. WEISS, AMOS S. WELLS, CHARLES WIETHOFF, FREDERICK R. WUNDERLICH; Associate Professors PETER J. BREKHUS, NORMAN J. COX, CARL O. FLAGSTAD, RAY R. KNIGHT, HARRY C. LAWTON, HAROLD J. LEONARD, JOSEPH M. LITTLE, EVERETT E. MACGIBBON, RICHARD S. MAYBURY, MARK O. PATTRIDGE, WILLIAM A. ROLL, CHARLES E. RUDOLPH, JOSEPH F. SHELLMAN, WILLIAM D. VEHE, ARTHUR A. ZIEROLD; Assistant Professors BERT G. ANDERSON, ARCHIBALD BUTTER, OSCAR COOPERMAN, RUDOLPH W. DELTON, WILLIAM A. GREY, LEE A. HARKER, RAYMOND R. HENRY, CLARENCE E. HERMANN, HOUGHTON HOLLIDAY, WILLIAM NAEGELI, HERBERT C. NELSON, CARL F. OTTO, PAUL S. PARKER, CARL H. PETRI, CARL W. WALDRON, LEHMAN WENDELL, DANIEL E. ZISKIN; Instructors LEONARD V. DOWNING, GEORGE D. ESTES, JAY M. FREEBURG, JOHN R. GILL, WALTER K. HAVEN, HAROLD C. HILLMAN, ROY M. JERNALL, ARTHUR F. JOHNSON, RAYMOND E. JOHNSON, VERNON G. LAUER, RAYMOND H. LUNDQUIST, LESTER C. McCARTHY, THEODORE W. MAVES, GEORGE A. MONTELIUS, EARL A. NELSON, EARL W. NELSON, ALLEN T. NEWMAN, CARL A. OMAN, HENRY N. REINKING, JOHN F. SPRAFKA.

MARION R. STEVENS, CLAYTON A. SWANSON, MERRILL G. SWENSON, FRED C. THIERS, LOUIS W. THOM, CORA L. UELAND, RUEBEN A. ULVESTAD, INGVALD G. VEBLEN, ANDREW J. WEISS, FRED DENTON WHITE, AMADEUS F. WOLTER; Assistants AMBERT B. HALL, HAROLD G. HECKLER, IGNATIUS P. MOGA, JEE LUM WONG.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
<i>Division of Oral Anatomy</i>				
1f-w-s†	9	Oral Anatomy.....	Fr.	
2f-w-s†	6	Oral Anatomy.....	Dental hygienists and mechanics	
<i>Division of Crown and Bridge Work</i>				
11f-w-s†	6	Crown and Bridge Work..	Soph.	Dent. Anat. 1
12f-w-s†	6	Crown and Bridge Work..	Jr.	11f-w-s
13f-w-s†	12	Crown and Bridge Work..	Sr.	12f-w-s
14f-w-s†	13	Crown and Bridge Work..	Mech.	None
<i>Division of Oral Diagnosis</i>				
21s	1	Oral Diagnosis	Jr.	
22f-w†	2	Oral Diagnosis	Sr.	21s
23w-s†	3	Roentgenology	Hyg.	
<i>Division of Operative Dentistry</i>				
31f-w-s†	14	Operative Dentistry	Soph.	Oral Anat. 1
32f-w-s†	14	Operative Dentistry	Jr.	31
33f-w-s†	15	Operative Dentistry	Sr.	32
34f-w-s†	9	Operative Dentistry	Hyg.	Oral Anat. 2
35f-w†	1	Operative Dentistry	Hyg.	Oral Anat. 2
<i>Division of Orthodontia</i>				
41s	3	Orthodontia	Jr.	Pros. Tech. 52f-w
42f-w-s†	6	Orthodontia	Sr.	41
43s	1	Orthodontia	Mech.	None
<i>Division of Prosthetic Dentistry</i>				
51f-w-s†	9	Prosthetic Dentistry	Fr.	None
52f-w†	5	Prosthetic Dentistry	Soph.	51f-w-s
53f	3	Prosthetic Dentistry	Jr.	52f-w
54w-s†	4	Prosthetic Dentistry	Jr.	53f
55f-w-s†	6	Prosthetic Dentistry	Sr.	54
56f-w-s†	13	Prosthetic Dentistry	Mech.	None
57f-w-s†	4	Prosthetic Dentistry	Hyg.	None
<i>Division of Periodontia and Oral Hygiene</i>				
61f,w	2	Oral Hygiene	Jr., hyg.	Bacteriology
62s	3	Oral Pathology	Jr.	Bact. and path.
63w	2	Oral Pathology	Hyg.	None
64w	1	Periodontia	Jr.	None
65f	1	Periodontia	Sr.	Periodontia, Jr.
66s	1	Prophylaxis	Hyg.	None
67f-w-s†	12	Prophylaxis	Hyg.	66s
68f	2	Hospital Dentistry	Hyg.	None
<i>Division of Oral Surgery</i>				
71w-s†	4	Oral Surgery	Jr.	62
72f-w-s†	5	Oral Surgery	Sr.	71w-s
73f-w-s†	7	Oral Surgery	Hyg.	
<i>Group in Thesis and Seminar</i>				
81w-s†	2	Thesis and Seminar.....	Sr.	
82s	1	Thesis and Seminar.....	Hyg.	

DIVISION OF ORAL ANATOMY

1f-w-s†. ORAL ANATOMY. Lectures and recitations on anatomy and nomenclature of teeth, and such laboratory work as drawing, dissecting, modeling, and carving of the teeth. Special attention given the physiological function of tooth form and its practical application. 33 lecture and recitation hours, 198 laboratory hours. DR. DAMON, DR. RUDOLPH, DR. COOPerman, DR. HARKER, DR. PETRI, DR. DOWNING, DR. JOHNSON, DR. SWENSON.

2f-w-s†. ORAL ANATOMY. Abbreviation of courses 1f-2w-3s to meet the special needs of dental hygienists and mechanics. 132 hours. DR. HARKER, DR. DOWNING, DR. SWENSON.

DIVISION OF CROWN AND BRIDGE WORK

11f-w-s.† CROWN AND BRIDGE WORK. A technique course. Lectures, demonstrations, and laboratory work including all the more important forms of crowns and bridges. 198 hours. DR. WELLS, DR. PAGENKOPF, DR. REYNOLDS, DR. LUNDQUIST, DR. McCARTHY, DR. EARL A. NELSON.

12f-w-s†. CROWN AND BRIDGE WORK. A clinical course covering the simpler forms of crowns and bridges. 198 hours. DR. WELLS, DR. ORTON, DR. PAGENKOPF, DR. BREKHUS, DR. ROLL, DR. H. C. NELSON, DR. OTTO, DR. GILL, DR. MAVES.

13f-w-s†. CROWN AND BRIDGE WORK. A course of 33 lectures and 297 clinical hours, covering the entire field of crown and bridge work. DR. WELLS, DR. ORTON, DR. PAGENKOPF, DR. BREKHUS, DR. ROLL, DR. H. C. NELSON, DR. OTTO, DR. GILL, DR. MAVES.

14f-w-s†. CROWN AND BRIDGE WORK. A course for dental mechanics covering the laboratory technique of crown and bridge work. 429 hours. DR. REYNOLDS, MR. WEISS.

DIVISION OF ORAL DIAGNOSIS

21s. ORAL DIAGNOSIS. A consideration of the methods in oral diagnosis with special emphasis on the application of the X-ray. 11 hours. DR. ANDERSON, DR. BREKHUS, DR. KNIGHT, DR. HOLLIDAY, DR. MONTELIUS.

22f-w†. ORAL DIAGNOSIS. A study of patients entering the clinic to determine the conditions of the teeth and surrounding tissues and advise medical measures; and a study of selected cases from a medical point of view, aiming to correlate the condition of the teeth with the patient's state of health. 11 lecture hours, 33 clinical hours. DR. ANDERSON, DR. BREKHUS, DR. KNIGHT, DR. HOLLIDAY, DR. GREY, DR. ZISKIN, DR. MONTELIUS, DR. HERMANN, DR. HILLMAN, DR. JOHNSON, DR. LAUER.

23w-s†. ROENTGENOLOGY. Course for dental hygienists. 66 hours. DR. HOLLIDAY and assistants.

DIVISION OF OPERATIVE DENTISTRY

31f-w-s†. OPERATIVE DENTISTRY. A course of lectures, recitations, demonstrations, and laboratory work. 198 hours. DR. GREEN, DR. BUTTER, DR. SPRAFKA, DR. THIERS, DR. THOM.

32f-w-s†. OPERATIVE DENTISTRY. A course of 33 lecture and recitation hours and 330 clinical hours. DR. WALLS, DR. SHELLMAN, DR. BUTTER, DR. NAEGELI, DR. PARKER, DR. ESTES, DR. FREEBURG, DR. SPRAFKA, DR. THIERS, DR. THOM.

33f-w-s†. OPERATIVE DENTISTRY. A course of 33 lecture and recitation hours and 396 clinical hours. DR. WALLS, DR. GODFREY, DR. COX, DR. LITTLE, DR. MAYBURY, DR. SHELLMAN, DR. VEHE, DR. HENRY, DR. NAEGELI, DR. PARKER, DR. STEVENS.

34f-w-s†. OPERATIVE DENTISTRY. A course of lectures and laboratory work. 297 hours, offered to dental hygienists. DR. WALLS, MR. WEISS.

35f-w†. OPERATIVE DENTISTRY. A course of lectures on the principles of dentistry for dental hygienists. 22 hours. DR. WALLS and associates.

DIVISION OF ORTHODONTIA

41s. ORTHODONTIA. A course of lectures, recitations, and laboratory work in the making of regulating appliances. 66 hours. DR. LAWTON, DR. DELTON, DR. WENDELL.

42f-w-s†. ORTHODONTIA. A course of lectures, recitations, and clinical work. Every student is required to treat at least one case of irregularity of the teeth. 33 lecture and recitation hours and 99 clinical hours. DR. WEISS, DR. ERNST, DR. LASBY, DR. FLAGSTAD, DR. NEWMAN.

43s. ORTHODONTIA. A course of lectures and laboratory work covering the technique and its practical application. 33 hours. MR. WEISS.

DIVISION OF PROSTHETIC DENTISTRY

51f-w-s†. PROSTHETIC DENTISTRY. A course of lectures, recitations, and laboratory work covering the use of impression materials and the different processes of plate work. 33 lecture and recitation hours, 198 laboratory hours. DR. DAMON, DR. RUDOLPH, DR. COOPerman, DR. PETRI, DR. JOHNSON, DR. SWENSON.

52f-w†. PROSTHETIC DENTISTRY. A course of lectures, recitations, and laboratory work covering the principles of metallic dentures. 165 hours. DR. LAWTON, DR. DELTON, DR. WENDELL.

53f. PROSTHETIC DENTISTRY. A course of lectures and recitations covering the subject of prosthetic dentistry in preparation for clinical work. 33 hours. DR. WEISS.

54w-s†. PROSTHETIC DENTISTRY. Clinical practice in denture work. 132 hours. DR. LASBY, DR. FLAGSTAD, DR. JERNALL, DR. ULVESTAD.

55f-w-s†. PROSTHETIC DENTISTRY. A course of clinical work in special prosthesis, cleft palate, and facial restorations. 198 hours. DR. LASBY, DR. WEISS, DR. FLAGSTAD, DR. JERNALL, DR. ULVESTAD.

56f-w-s†. PROSTHETIC DENTISTRY. A course of lectures, recitations, and laboratory technique covering equipment and arrangement of the dental laboratory, impression materials, study models, vulcanite and metallic dentures. 429 hours. DR. DAMON, DR. RUDOLPH, DR. DOWNING, DR. HAVEN, DR. SWENSON, MR. WEISS, DR. WOLTER.

57f-w-s†. PROSTHETIC DENTISTRY. An abbreviation of Course 56 for dental hygienists. 132 hours. DR. DAMON, DR. RUDOLPH, DR. WOLTER, MR. HECKLER.

DIVISION OF PERIODONTIA AND ORAL HYGIENE

61f,w. ORAL HYGIENE. Lectures and recitations on general and oral hygiene. 22 hours. DR. LEONARD.

62s. ORAL PATHOLOGY. Lectures and recitations on the special pathology of the teeth and other oral tissues. 33 hours. DR. LEONARD.

63w. ORAL PATHOLOGY. A somewhat abbreviated course on the foregoing, especially adapted for dental hygienist students. 22 hours. DR. VEBLEN.

64w. PERIODONTIA. An intensive demonstration and practice course in the causes, treatment, and prevention of gingivitis and dental periclasia and in the prevention of dental caries. Special attention is paid to diagnosis and to systemic complications. 33 hours. DR. LEONARD, DR. WALDRON, DR. ZISKIN, DR. HAVEN, DR. JOHNSON, DR. VEBLEN.

65f. PERIODONTIA. A continuation of Course 64. 33 hours.

66s. PROPHYLAXIS. An introduction to prophylaxis technique by manikin practice for dental hygienists. 33 hours. MISS UELAND.

67f-w-s†. PROPHYLAXIS. Theory and practice in the technique and application of dental prophylaxis and oral hygiene. Given in the dental infirmary, the University hospitals and the public school clinics for dental hygienists. 396 hours. DR. ZISKIN, MISS UELAND, DR. WHITE.

68f. HOSPITAL DENTISTRY. A course of 44 hours in hospital dental routine for dental hygienists. DR. ZISKIN.

DIVISION OF ORAL SURGERY

71w-s†. ORAL SURGERY. Principles underlying general surgical procedure; development and application of anaesthesia chiefly as applied to face, mouth, and jaws. General considerations in the extraction of teeth. 33 lecture and recitation hours and 33 clinical hours. DR. WIETHOFF, DR. GRIFFITH, DR. MAVES, DR. MACGIBBON, DR. ZIEROLD, DR. HOLLIDAY, DR. E. W. NELSON, DR. OMAN, DR. REINKING.

72f-w-s†. ORAL SURGERY. Diagnosis and treatment of surgical diseases of the face, mouth, and jaws. Practice in local and general anaesthesia.

Consideration of types of patients and complications. 44 lecture and recitation hours and 33 clinical hours. DR. GRIFFITH, DR. MAVES, DR. ZIEROLD, DR. GREY, DR. HERMANN, DR. ZISKIN, and associates.

73f-w-s†. ORAL SURGERY. Surgical assisting and nitrous oxide anaesthesia. 11 lecture hours and 198 practice hours for dental hygienists. DR. WIETHOFF and associates.

THESIS AND SEMINAR

81w-s†. A thesis and seminar course in theory and practice of dentistry, applied economics, jurisprudence, psychology, ethics. 22 hours. DR. OWRE and associates.

82s. THESIS AND SEMINAR. A conference course in the theory and practice of dentistry for dental hygienists. 11 hours. DR. OWRE.

MEDICINE

Professor S. MARX WHITE.

Given by members of the Department of Medicine in coöperation with other departments of the Medical School.

See Medical School bulletin, Department of Medicine, Med. 66s.

36s. CLINICAL MEDICINE. Includes a discussion of the more important problems in clinical medicine with special reference to the conditions in which focal infections play a part. A discussion of the relations between dentistry and medicine is entered into. 22 hours.

METALLOGRAPHY

Associate Professor OSCAR E. HARDER; Instructors RALPH L. DOWDELL, CLAYTON M. REASONER.

COURSE

No.	Credits	Title	Offered to	Prerequisite courses
159	2	Dental Metallography....	Jr.	Chem.

159. DENTAL METALLOGRAPHY. Lectures, recitations, and demonstrations, taking up the most important metals with special reference to those used in dentistry and the study of dental alloys from the standpoint of metallography. 36 hours. MR. HARDER, MR. DOWDELL, MR. REASONER.

MILITARY SCIENCE AND TACTICS

Professor FREDERICK R. WUNDERLICH, Major, Dental Corps, U.S.A.

BASIC COURSE

Male dental students who are physically fit may enroll in the Basic R.O.T.C. Course. If they enroll they must complete the course unless they are relieved by proper authority. This course is designed to give the student the advantages of a fundamental military training and to prepare him to proceed with the Advanced Course.

ADVANCED COURSE

Junior and senior dental students who have completed the required Basic Course may be selected for the Advanced Course. Enrolment is optional with the students selected. Attendance at a summer camp of six weeks duration is required of all Advanced Course students. Students receive \$30 per month in addition to board and lodging while in camp; also traveling expenses to and from camp.

Upon graduation and completion of the Advanced Course, if recommended by the professor of military science and tactics, dental students become eligible for a commission in the Dental Officers' Reserve Corps.

1. ORGANIZATION AND ADMINISTRATION. General organization and administration of the United States Army with particular attention to the Medical Department and Dental Service. Lectures and recitations. 38 hours.
2. SANITATION. Appropriate instruction is given to the four classes in personal hygiene and general military sanitation. In the senior year, special attention is given to comparative civil and military methods in control of disease. Lectures and recitations. 25 hours.
3. TACTICS. Such didactic instruction in tactics and related subjects is presented as will enable the student to appreciate the actual field exercises at the summer camp, and stimulate his interest in tactical problems. Lectures and recitations. 23 hours.
4. MILITARY ART. Embracing the evolution of military organization and practice and the administrative and professional developments of the medical and dental services. Lectures and recitations. 19 hours.
5. LOGISTICS. The problems of transportation and supply, particularly the procurement, storage, distribution, and conservation of dental supplies in the army. Lectures and recitations. 8 hours.
6. FIRST AID. The principles of first aid are taught with especial attention to those conditions which might be met by dental surgeons when circumstances require them to function as emergency medical officers. Lectures and recitations. 7 hours.

PATHOLOGY

Professor ELEXIUS T. BELL; Assistant Professors BENJAMIN J. CLAWSON, JAMES S. McCARTNEY, JR.; Teaching Fellows ERNEST J. COLBERG, DONALD W. DE CARLE.

COURSE

No.	Credits	Title	Offered to	Prerequisite courses
4f	8	General and Special Pathology	Jr.	Gross anat., histol.

- 4f. GENERAL AND SPECIAL PATHOLOGY. Circulatory disturbances, metabolic changes in cells and tissues, pigment deposits, inflammations, and

tumors. Pathology of selected diseases, tumors, and lesions with reference to those affecting mouth and dental structures. Exercises in gross and microscopic diagnosis. 165 hours. DR. BELL, DR. CLAWSON, DR. McCARTNEY, and assistants.

PHARMACOLOGY

Professor ARTHUR D. HIRSCHFELDER; Associate Professor EDGAR D. BROWN; Teaching Fellow HERMAN JENSEN.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
4w	4	Pharmacology	Jr.	.....
6w		Experimental Pharmacol..	Jr.	.....

4w. PHARMACOLOGY. The history, origin, nature, pharmacal preparations, and use of drugs, including the discussion of their physiologic, pharmacologic, and therapeutic actions. 44 hours. DR. BROWN.

6w. EXPERIMENTAL PHARMACOLOGY. Laboratory exercises upon the chemical composition and mode of action of typical drugs upon man and animals, primarily for students in dentistry. One exercise (2 hours) per week. DR. HIRSCHFELDER, DR. BROWN, MR. JENSEN.

PHYSIOLOGY

Professors ELIAS P. LYON, JESSE F. McCLENDON, FREDERICK H. SCOTT; Associate Professors RICHARD O. BEARD, CHAUNCEY J. V. PETTIBONE; FRANCIS B. KINGSBURY; Assistant Professor CHARLES C. GAULT; Instructor WILLIAM W. SWANSON; Teaching Fellow CHARLES C. SHEPARD.

COURSES

No.	Credits	Title	Offered to	Prerequisite courses
56s-su	4	Physiologic Chemistry....	Soph.	Biology 1, 2 or 5, 6, 7; Chemistry 1, 2, 3 or 4, 5
57f-58w	8	Human Physiology.....	Soph.	Biology 1, 2 or 5, 6, 7; Chemistry 1, 2, 3 or 4, 5

56s-su. PHYSIOLOGIC CHEMISTRY. An intermediate course. The components of the animal body; foods, digestion, the excreta and metabolism. 66 hours. MR. PETTIBONE and assistants.

57f-58w. PHYSIOLOGY. An intermediate course in the physiology of muscle, nerve, blood, circulation, digestion, the nervous system and special senses; respiration, metabolism, nutrition and excretion. 132 hours. DR. LYON, DR. BEARD, MR. SCOTT, MR. GAULT, and assistants.

ALUMNI ASSOCIATION OF THE COLLEGE OF DENTISTRY

President GEORGE M. DAMON

Secretary-Treasurer ALLEN T. NEWMAN.

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The Bulletin of the University of Minnesota

*The School for Dental Nurses
Announcement for the Year
1922-1923*



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Vol. XXV No. 18 May 27 1922

Entered at the post-office in Minneapolis as second-class matter
Minneapolis, Minnesota

Accepted for mailing at special rate of postage provided for in section 1103,
Act of October 3, 1917, authorized July 12, 1918

1922							1923													
JULY							JANUARY							JULY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9	10	11	12	13	14	15	7	8	9	10	11	12	13	8	9	10	11	12	13	14
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23	24	25	26	27	28	29	21	22	23	24	25	26	27	22	23	24	25	26	27	28
30	31	28	29	30	31	29	30	31
AUGUST							FEBRUARY							AUGUST						
..	1	2	3	4	5	6	1	2	3	1	2	3	4	5	6
6	7	8	9	10	11	12	4	5	6	7	8	9	10	5	6	7	8	9	10	11
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27	28	29	30	31	25	26	27	28	26	27	28	29	30	31	..
SEPTEMBER							MARCH							SEPTEMBER						
..	1	2	3	4	5	6	1	2	3	3	4	5	6	7	1
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OCTOBER							APRIL							OCTOBER						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	..	1	2	3	4	5	6
8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
29	30	31	29	30	28	29	30	31
NOVEMBER							MAY							NOVEMBER						
..	1	2	3	4	5	6	1	2	3	4	5
5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10
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26	27	28	29	30	27	28	29	30	31	25	26	27	28	29	30	..
DECEMBER							JUNE							DECEMBER						
..	1	2	3	4	5	6	1	2	3	4	5
3	4	5	6	7	8	9	3	4	5	6	7	8	9	2	3	4	5	6	7	8
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24	25	26	27	28	29	30	24	25	26	27	28	29	30	23	24	25	26	27	28	29
31	30	31

UNIVERSITY CALENDAR

			1922-23
			1922
September	16	Saturday	Payment of fees closes, except for new students
September	19-26		Examinations for removal of conditions and entrance examinations
			Physical examinations for all new students
September	19-23		Registration period, colleges of Science, Literature, and the Arts, and Agriculture, Forestry, and Home Economics
September	25-26		Registration days for all colleges not indicated above
September	26	Tuesday	Payment of fees for new students closes
September	27	Wednesday	Fall quarter begins, 8:30* a.m.
October	14	Saturday	Class Scrap Day; classes dismissed the third and fourth hours
October	26	Thursday	Senate meeting, 4:30 p.m.
November	4	Saturday	Home Coming Day; classes dismissed the third and fourth hours
November	7	Tuesday	General Election Day; a holiday
November	11	Saturday	Armistice Day; a holiday
November	30	Thursday	Thanksgiving Day; a holiday
December	14	Thursday	Senate meeting, 4:30 p.m.
December	20	Wednesday	Fall quarter ends, Christmas vacation begins, 5:20 p.m.
			1923
January	4	Thursday	Christmas vacation ends, winter quarter begins, 8:30* a.m.
February	12	Monday	Lincoln's Birthday; a holiday
February	15	Thursday	Senate meeting, 4:30 p.m.
February	22	Thursday	Washington's Birthday; a holiday
March	23	Friday	Winter quarter ends, spring vacation begins, 5:20 p.m.
April	4	Wednesday	Spring vacation ends, spring quarter begins, 8:30* a.m.
May	17	Thursday	Senate meeting, 4:30 p.m.
May	30	Wednesday	Memorial Day; a holiday
June	17	Sunday	Baccalaureate service
June	20	Wednesday	Fifty-first annual commencement
June	20	Wednesday	Spring quarter closes, 5:20 p.m.
June	23-25		Registration days for Summer Session
June	26	Tuesday	Summer Session and summer quarter begin
July	4	Wednesday	Independence Day; a holiday
August	3	Friday	Summer Session closes
September	7	Friday	Summer quarter closes

* First hour classes begin at 8:15 at University Farm.

AN ACT TO PROVIDE FOR THE LICENSING OF DENTAL NURSES AND PROVIDING THE DUTIES AND RIGHTS OF DENTAL NURSES.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. *Who may become dental nurse.*—Any woman of good moral character, having a high school education and being 20 years of age or over, who is a graduate of a training school for dental nurses requiring a course of not less than two academic years, and approved by the board of dental examiners, or who is a graduate of a training school for nurses and has received at least three (3) months' clinical training in dental hygiene in any approved training school for dental nurses, may upon payment of ten (\$10.00) dollars be examined by said board on the subjects considered essential by it for a dental nurse. Such examinations may, in the discretion of the board, be conducted by a part of the members of the board. If the applicant in the opinion of the board, successfully passes said examination, she shall be registered and licensed as a dental nurse. Any woman of good moral character and 20 years of age or more, who before June 1, 1919, shall register her name with the state board of dental examiners, may upon showing three (3) years' actual experience in the office of a licensed dentist, and upon complying with such requirements and passing such examination as the board of dental examiners shall require, be licensed as a dental nurse.

Sec. 2. *Employment of and practice by dental nurses.*—Any licensed dentist, public institution or school authorities may employ such licensed dental nurse. Such dental nurse may remove lime deposits, accretions and stains from the exposed surface of the teeth, and administer gas and ether anesthesia, as applied to dentistry, but shall not perform any other operation on the teeth or tissues of the mouth. She may operate in the office of any licensed dentist or in any public institution, or in the schools, under the general direction or supervision of a licensed dentist. The board of dental examiners may suspend or revoke, with power to reinstate, the license of any licensed dentist who shall permit any dental nurse operating under his supervision, to perform any operation other than that permitted under the provisions of this section, and it may also suspend or revoke, with power of reinstatement, the license of any dental nurse violating the provisions of this act, the procedure to be followed in the case of such suspension, revocation, or reinstatement, shall be the same as that prescribed by law in the case of suspension, revocation or reinstatement of a licensed dentist.

Sec. 3. *Payments to be made to Board of Dental Examiners.*—Before the first of May in each year, every licensed dental nurse shall pay to the board of dental examiners a license fee of one (\$1.00) dollar and in default of such payment, the board may upon hearing and upon twenty (20) days' notice revoke the license of the nurse in default; but the payment of such fee on or before the time of hearing, with such additional sum not exceeding five (\$5.00) dollars, as may be fixed by the board, shall excuse any default. The board may collect such fee by suit.

Sec. 4. *Licensing of dental nurses authorized by another state.*—Any female dental nurse or dental hygienist duly licensed to practice as such in another state having and maintaining an equal standard of laws regulating the practice of dental nurses with this state, and who is of good moral character and is desirous of removing to this state, and deposits in person with the board of dental examiners a certificate from the examining board of the state in which she is licensed, certifying to the fact of her being licensed and that she is of good moral character and professional attainments, may upon the payment of a fee of twenty (\$20.00) dollars, at the discretion of the board, be granted a license to practice in this state without further examination. As to any person so applying and who has been licensed in a state not maintaining an equal standard of laws within this state, the board may license such person upon the payment of the fee above provided for, furnishing the same evidence as to licensing, good moral character, and professional attainments, and passing such further examination as the board of dental examiners shall deem necessary.

Sec. 5. This act shall take effect from and after its passage.

Approved April 15, 1919.

SCHOOL FOR DENTAL NURSES
FACULTY

LOTUS DELTA COFFMAN, Ph.D., President
WILLIAM WATTS FOLWELL, LL.D., President Emeritus
¹CYRUS NORTHRUP, President Emeritus
ALFRED OWRE, D.M.D., M.D., C.M., B.A., Dean of the College of Dentistry,
Professor of the Practice of Dentistry, Chairman of the Department
of Dentistry.
HAROLD J. LEONARD, B.A., D.D.S., Associate Professor of Oral Hygiene and
Periodontia, and Chairman of the Division of Periodontia and Oral
Hygiene, and Superintendent for Dental Nurses.
RICHARD O. BEARD, M.D., Associate Professor of Physiology
ALICE M. CHILD, M.A., Assistant Professor of Home Economics
GEORGE M. DAMON, D.D.S., Professor of Prosthetic Dentistry and Oral
Anatomy and Chairman of the Division of Oral Anatomy
CHARLES C. GAULT, M.A., M.B., Assistant Professor of Physiology
CHARLES A. GRIFFITH, D.D.S., Professor of Oral Surgery
LEE A. HARKER, D.D.S., Assistant Professor of Oral Anatomy
ARTHUR D. HIRSCHFELDER, B.S., M.D., Professor of Pharmacology
HOUGHTON HOLLIDAY, B.A., D.D.S., Assistant Professor of Oral Diagnosis
and Oral Surgery
CLARENCE M. JACKSON, M.S., M.D., Professor of Anatomy
MAY S. KISLOCK, B.A., Assistant Professor of Physical Education for
Women
JESSIE S. LADD, Dean of Women
WINFORD P. LARSON, M.D., Professor of Bacteriology and Immunology
WILLIAM F. LASBY, B.A., D.D.S., Professor of Prosthetic Dentistry and
Orthodontia and Chairman of the Division of Prosthetic Dentistry
ELIAS P. LYON, Ph.D., M.D., Professor of Physiology
EVERETT E. MACGIBBON, D.D.S., Assistant Professor of Oral Surgery
HERMAN A. MAVES, D.D.S., Professor of Oral Surgery
J. ANNA NORRIS, M.D., Professor of Physical Education for Women
LOUISE M. POWELL, R.N., Director of the School of Nursing
FRANK M. RARIG, M.A., Associate Professor of Public Speaking
CHARLES E. RUDOLPH, D.D.S., Associate Professor of Prosthetic Dentistry
and Oral Anatomy, Superintendent of the Course for Dental Mechanics
JOSEPH F. SHELLMAN, D.D.S., Associate Professor of Operative Dentistry
M. CANNON SNEED, Ph.D., Associate Professor of Chemistry
JOSEPH M. THOMAS, Ph.D., Professor of Rhetoric
ALICE J. H. TOLG, M.D., Assistant Professor of Physical Education for
Women
MARION L. VANNIER, R.N., Assistant Professor of Nursing
JAMES M. WALLS, D.M.D., Professor of Operative Dentistry and Chairman
of the Division of Operative Dentistry
S. MARX WHITE, B.S., M.D., Professor of Medicine

¹ Died April 3, 1922.

CHARLES A. WIETHOFF, D.D.S., Professor of Oral Surgery and Chairman of the Division of Oral Surgery

FREDERICK J. WULLING, Phm.G., Phm.D., LL.M., Professor of Pharmacology

DANIEL E. ZISKIN, D.D.S., Assistant Professor of Oral Surgery

ARTHUR ZIEROLD, D.D.S., M.D., M.A., Associate Professor of Oral Surgery

ANNE BENTON, M.A., Instructor in Bacteriology

HERVEY H. BARBER, B.A., Instructor in Chemistry

HENRIETTA BROWNING, B.A., Instructor in Physical Education for Women

HALLY J. FISHER, R.N., Instructor in Home Nursing

RAYMOND H. LUNDQUIST, D.D.S., Instructor in Crown and Bridge Work

EARLE W. NELSON, D.D.S., Instructor in Oral Surgery

ALLEN NEWMAN, M.Sc., D.D.S., Instructor in Orthodontia and Superintendent of the Infirmary

CARL A. OMAN, D.D.S., Instructor in Oral Surgery

ELIZABETH V. PEHOUSEK, Instructor in Office Practice and Librarian of the College of Dentistry

HENRY N. REINKING, D.D.S., Instructor in Oral Surgery

GRACE M. ROCKWOOD, B.A., Instructor in Physical Education for Women

DAVID O. SPRIESTERSBACH, M.S., Instructor in Bacteriology

CORA L. UELAND, M.A., Instructor in Oral Hygiene and Periodontia

INGVALD VEBLEN, D.D.S., Instructor in Periodontia

F. DENTON WHITE, D.D.S., Instructor in Oral Hygiene and Periodontia

AMADEUS F. WOLTER, D.D.S., Instructor in Prosthetic Dentistry

RUTH HERRICK, B.S., Teaching Fellow in Anatomy

HERMAN JENSEN, B.A., B.S., Teaching Fellow in Pharmacology

CHARLES E. SHEPARD, B.S., Teaching Fellow in Physiology

AMBERT B. HALL, Assistant in Dental Anatomy

HAROLD G. HECKLER, Assistant in Prosthetic Dentistry

GENERAL INFORMATION

PURPOSE

The School for Dental Nurses has been established primarily to fill the need for workers in the public schools, hospitals, mercantile and industrial institutions and dental offices to do dental prophylaxis work and to teach the hygiene of the mouth—in other words to do the preventive dental work which has not been possible in the organization of dentistry up to the present and which is recognized to be one of the great physical needs of the times. As thoro a background of scientific and cultural subjects as is possible in the time of the course is included to give the students that professional education and point of view without which they would be mere technicians and quite unsafe to turn loose on the public in the semi-independent capacity which the nature of their work will demand. The course includes training in all branches of dental office assisting and should make graduates easily adaptable to the general and special needs of the private dental offices should that be the field of work selected.

The course requires two years of thirty-three weeks each and leads to the degree of graduate dental nurse (G.D.N.). The incorporation of this work in the University makes it possible to give all the subjects of the curriculum in the appropriate departments of the University, thus assuring a university contact to the student and instruction under the best auspices.

TIME AND PLACE

The course of study in the School for Dental Nurses for the school year 1922-23 will begin September 27, 1922. Registration days are the two days preceding. The first quarter is almost entirely devoted to medical sciences and is done at the University Hospital, Millard Hall, and the Anatomy Building after which the work will be done almost entirely in the Dentistry Building. The fall quarter is the only time at which beginning students will be admitted. Rules for the guidance of students are printed in a separate booklet.

REGISTRATION

Applicants for admission may obtain credential blanks from the office of the registrar or from the superintendent of the school, Dr. Harold J. Leonard, College of Dentistry, University of Minnesota. These should be filled out and sent by the principal or superintendent of the high school or preparatory school to the registrar's office. Upon receipt of the credentials at the University, the registrar will notify the applicant with regard to her admission and will send directions for registration. For further information in regard to registration and to the general requirements for admission to the University, application may be made for the bulletin of general information.

REQUIREMENTS FOR ADMISSION

The School for Dental Nurses requires for admission graduation from an approved high school or other preparatory school on the accredited list.

Preference, however, will be given to women of superior preliminary training. Applicants must be not less than eighteen nor more than thirty-five years of age. They must be able to pass a satisfactory general physical examination by the school physician. The beginning class is limited to twenty-five students.

FEES

Tuition fee (per quarter).....	\$25.00
Deposit (first quarter only).....	5.00
Health fee (per quarter).....	2.00
Shevlin Hall (per quarter).....	1.00
Post-office box (per quarter).....	.20
Special fees:	
Examination for removal of conditions.....	1.00
Examinations for credit (after first six weeks in residence).....	5.00
Special examinations	5.00
Chemistry deposit	5.00

PENALTY FEES:

Registration penalties.—A penalty fee for late registration, late change of registration, or late payment of fees shall be two dollars (\$2) and one dollar (\$1) additional for each day of delay after classes begin, provided that no student shall pay more than twelve dollars (\$12) of penalty in any given quarter.

ADVANCED STANDING

Graduates of approved training schools for nurses will be admitted for advanced standing in the School for Dental Nurses, and should be able to complete the remainder of the work required for the degree of graduate dental nurse in one college year. Graduate nurses will be given permission to enter the school for one quarter's work to qualify them according to the law to take the state board examination for a license to practice dental nursing. Such students will not be candidates for the degree of graduate dental nurse and will be given university credit only insofar as it would apply if sufficient work to qualify for the degree were taken later.

INSTRUMENTS

The University will furnish the larger pieces of equipment needed for the work in the clinic and laboratories but the students must furnish their own aprons, operating instruments, and tools. The list of laboratory tools will be needed at the beginning of the freshman year. It will cost approximately fifty dollars. The instruments for the clinic will be needed in the third quarter of the freshman year. This list will cost approximately twenty dollars. Some few textbooks also will be required.

COURSE OF STUDY

Number	Subject	Department	SENIOR YEAR			Hours	Credits	Total	Prerequisites	Teacher
			Fall Quarter	Winter Quarter	Spring Quarter					
61f,w	Oral Hygiene	Dentistry	2.2	2	2.2	22	2	22	For seniors only	Dr. Leonard
351-w†	Principles of Dentistry	Dentistry	1.1	1/2	1.1	11	1	22	For seniors only	Dr. Walls
5f,w,s,	Composition for Technical Students									
6w,s	English	English	3.3	3	3.3	33	6	66	Rhet. 4	Mr. Thomas
63w	Oral Pathology	Dentistry		2.2	2	22		22	For seniors only	Dr. Vebben
45f,w,s	Public Speaking	English								
36s	Clinical Medicine	Medicine								
8,2s	Theory and Practice	Dentistry	1.3 ²	4	1.3 ²	4	3.3	33	Rhet. 4, 5, 6	Mr. Ranig
67f-w-s†	Prophylaxis	Dentistry								
73f-w-s†	Anæsthetics and Operating Room Technique	Dentistry	7.7	2 1/2	6.6	2	66	209	For seniors only	Dr. White
34f-w-s†	Dental Assisting and Laboratory	Dentistry	0.9	3	0.9	99	3	297	For seniors only	Dr. Walls
23w-s†	Dental Roentgenology	Dentistry						66	None	Dr. Holliday
		Total	374	15	396	16		396		
								1166		
									46 1/2	

* Hours mean actual hour periods spent in class.

† Subjects marked with a dagger (†) and in which the quarter figures are connected by a hyphen (-) are continuation subjects and do not receive a grade until they are completed.

‡ A credit means approximately three hours a week for a quarter. This may be three hours of laboratory or clinic work without time spent in outside preparation, or one hour spent in recitation requiring approximately two hours of outside preparation,

DEPARTMENTAL STATEMENTS ANATOMY

Professor CLARENCE M. JACKSON; Teaching Fellow RUTH HERRICK.

2f,w,s,su. ELEMENTARY ANATOMY. A general survey of human gross anatomy. The description and demonstration of the osseous, muscular, nervous, circulatory, respiratory, excretory, and reproduction systems. 3 hours a week for one quarter. DR. JACKSON, MISS HERRICK.

BACTERIOLOGY AND IMMUNOLOGY

Professor WINFORD P. LARSON; Instructor ANNE G. BENTON, DAVID O. SPRIESTERSBACH.

1f,w,s,su. GENERAL BACTERIOLOGY. The principles and technique of general bacteriology. Studies in the morphologic and biologic characters of the common bacteria. Preparation of culture media. Disinfectants and disinfection. Bacteriology of water and food products. 8 hours a week for one quarter. MISS BENTON, MR. SPRIESTERSBACH.

CHEMISTRY

Associate Professor M. CANNON SNEED; Instructor HERVEY H. BARBER.

51f,w,s,su. ELEMENTARY CHEMISTRY. A brief study of matter and energy; of chemical and physical changes; the fundamental laws of chemistry; chemical elements and compounds; the qualitative and quantitative composition of foods, air, and water. 3 hours a week for one quarter. MR. BARBER.

DENTISTRY

ORAL ANATOMY

Professor GEORGE M. DAMON; Assistant Professor LEE A. HARKER; Assistant AMBERT B. HALL.

2f,w,s,†. A course of lectures and recitations on the anatomy and nomenclature of the teeth and such laboratory work as drawing, dissection, modeling, and carving of the teeth. Special attention is given to the physiological function of tooth form and its practical application. 4 hours per week for three quarters. DR. DAMON, DR. HARKER, MR. HALL.

ORAL DIAGNOSIS

Assistant Professor HOUGHTON HOLLIDAY.

23w-s,†. DENTAL ROENTGENOLOGY. Lectures, demonstrations, readings, and quizzes in the elements of dental roentgenology. Training in the operation of X-ray equipment and in producing and reading X-ray films. 1 lecture hour; 2 practice hours a week for two quarters. DR. HOLLIDAY.

OPERATIVE DENTISTRY

Professor JAMES WALLS; Associate Professor JOSEPH F. SHELLMAN; Instructor RAYMOND H. LUNDQUIST.

34f-w-s†. DENTAL ASSISTING AND LABORATORY. A course in the technique of assisting the dentist at the chair and in the laboratory. 9 hours a week for three quarters. DR. SHELLMAN, DR. LUNDQUIST.

35f-w†. PRINCIPLES OF DENTISTRY. A course of lectures covering the principles underlying operative dentistry, crown and bridge, prosthetics, and orthodontia. 1 hour a week for two quarters. DR. WALLS, DR. SHELLMAN and associates.

PERIODONTIA AND ORAL HYGIENE

Associate Professor HAROLD J. LEONARD; Assistant Professor DANIEL E. ZISKIN; Instructors CORA L. UELAND, INGVOLD VEBLEN, F. DENTON WHITE.

61f,w. ORAL HYGIENE. Lectures and recitations on general and oral hygiene including such general and special material as a prospective health officer as well as dentist or dental nurse should have. Emphasizes prevention of disease and positive health. 2 hours a week for one quarter. DR. LEONARD.

63w. ORAL PATHOLOGY. Lectures and recitations on the special pathology of the teeth and other oral tissues. Specially adapted for dental nurses. 2 hours a week for one quarter. DR. LEONARD, DR. VEBLEN.

66s. PROPHYLAXIS. Drill in the technique of cleansing and polishing teeth, using manikins. 3 hours a week for one quarter. MISS UELAND.

67f-w-s†. PROPHYLAXIS. Practice in the dental infirmary and in the public school clinics in the cleansing and polishing of teeth and in instructing patients in measures of oral hygiene. 12 hours a week for three quarters. MISS UELAND, DR. WHITE.

68f. HOSPITAL DENTAL NURSING. A course in chart-reading and hospital routine. 4 hours a week for one quarter. DR. ZISKIN.

PROSTHETIC DENTISTRY

Professors WILLIAM F. LASBY, GEORGE M. DAMON; Associate Professor CHARLES E. RUDOLPH; Instructor AMADEUS F. WOLTER; Assistant HAROLD G. HECKLER.

57f-w-s†. PROSTHETIC TECHNIQUE. A course of lectures, recitations, and laboratory technique covering equipment and arrangement of the dental laboratory, impression materials, study models, vulcanite dentures. 4 hours per week for three quarters. DR. DAMON, DR. RUDOLPH, DR. WOLTER, MR. HECKLER.

ORAL SURGERY

Professors CHARLES A. GRIFFITH, HERMAN A. MAVES, CHARLES A. WIETHOFF; Associate Professors EVERETT E. MACGIBBON, ARTHUR A. ZIEROLD; Assistant Professors HOUGHTON HOLLIDAY; Instructors EARLE W. NELSON, CARL R. OMAN, HENRY N. REINKING.

73f-w-s†. ANESTHETICS AND OPERATING ROOM TECHNIQUE. Lectures and practice in administering anesthetics and assisting in dental operations. 1 hour a week lectures for one quarter and 6 hours a week practice throughout the year. DR. GRIFFITH, DR. MAVES, DR. WIETHOFF, DR. MACGIBBON, DR. HOLLIDAY, DR. NELSON, DR. OMAN, DR. REINKING.

THESIS AND SEMINAR

Professor ALFRED OWRE.

82s. THEORY AND PRACTICE. A course in the theory and practice of dentistry. 1 hour a week for one quarter. DR. OWRE.

OFFICE PRACTICE

Instructor ELIZABETH V. PEHOUSEK.

91w-s†. OFFICE PRACTICE. Study and practice in typewriting, letter-writing, filing, elementary bookkeeping, care of office, handling patients, office ethics, etc. 6 hours a week for one quarter and 3 hours a week for the following quarter. Miss PEHOUSEK.

ENGLISH

Professor JOSEPH M. THOMAS; Associate Professor FRANK M. RARIG.

4f,w,s-5f,w,s-6w,s. RHETORIC. A beginning course in the study of the fundamental principles of composition; training in the art of writing; the principles of structure, and analysis of specimens of good prose.

45f,w,s. PUBLIC SPEAKING. Fundamentals of effective speaking; breathing, voice production, enunciation, and action; delivery of extracts from the works of well-known writers and speakers; principles underlying speech-making applied in both oral and written compositions.

HOME ECONOMICS

Instructors ALICE M. CHILD, HALLY J. FISHER.

37f,s. HEALTH CARE OF THE FAMILY. Lectures, demonstrations, and practice in practical home nursing. The same course as given to the students in Home Economics. 5 hours a week for one quarter. Miss FISHER.

25s. FOOD AND NUTRITION. Chemical composition and physiological significance of foodstuffs. Principles of cookery underlying the preparation of foods: planning and preparation of normal and special diets. 5 hours a week for one quarter. Miss CHILD.

MEDICINE

Professor S. MARX WHITE.

36s. CLINICAL MEDICINE. Lectures and recitations dealing with the subject of systemic disease with special emphasis on the relationship or non-relationship between the systemic diseases and focal infection or irritation in the mouth and elsewhere. Offered to senior dental students, graduates, and dental nurses. 2 hours a week for one quarter. Arranged by DR. WHITE.

NURSING

Director LOUISE M. POWELL; Instructor MARION L. VANNIER.

11f,w,s,su. NURSING ETHICS. 2 hours a week for six weeks. MISS POWELL, MISS VANNIER.

PHARMACY

Professor FREDERICK J. WULLING.

51f,w. METROLOGY. A study of weights and measures, balances, specific gravity, etc. 2 hours a week for six weeks. MR. WULLING.

PHARMACOLOGY

Professor ARTHUR D. HIRSCHFELDER; Teaching Fellow HERMAN JENSEN.

4f,w,s,su. ELEMENTARY PHARMACOLOGY. A study of the history, uses, classifications and preparation of drugs; definition of descriptive terms; systems of weights and measures; methods of administration, principles of dosage, etc. 4 hours a week for one quarter. MR. JENSEN.

PHYSICAL EDUCATION FOR WOMEN

Professor J. ANNA NORRIS; Assistant Professors MAY S. KISLOCK, ALICE J. H. TOLG; Instructors GERTRUDE M. BAKER, HENRIETTA BROWNING, GRACE M. ROCKWOOD.

1f,3s. A course of physical exercises for the personal development of the student, especially directed to the training of the nurse in the adaptation of her movements to the best results in her practical work. 3 hours a week.

PHYSIOLOGY

Professor ELIAS P. LYON; Associate Professor RICHARD O. BEARD; Assistant Professor CHARLES C. GAULT; Teaching Fellow CHARLES E. SHEPARD.

4f,w,s,su. ELEMENTARY PHYSIOLOGY. The functional properties of tissue-cells; the material bases of the body; the nutritive media; the physiology of nerve and muscle; of the nervous system; the vascular mechanism; respiration, digestion, excretion, and metabolism. 8 hours a week for one quarter. DR. BEARD, DR. GAULT, MR. SHEPARD.

